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ESSAYS

ON

THE PURSUIT OF TRUTH,

ON THE

PROGRESS OF KNOWLEDGE,

AND ON

THE FUNDAMENTAL PRINCIPLE OF ALL EVIDENCE AND EXPECTATION.

BY

THE AUTHOR OF ESSAYS

ON THE

FORMATION AND PUBLICATION OF OPINIONS.

Samuel Bailey.

LONDON:

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PREFACE.

FEW words will be necessary in introducing the present volume to the public.

Some of those who did the author the honour of testifying a favourable estimate of a former Essay of his on the Formation of Opinions, expressed at the same time a regret that he had passed too lightly over one very important part of the subject; namely, the conduct of men in the application of their means and faculties to the investigation of

truth. While he had explained more or less to their satisfaction in what manner the mind is affected by the circumstances in which it is placed, and the inevitable determination of its views by the evidence presented to it, they thought that he had indicated in too cursory a way the duties of mankind in the collection and examination of that evidence, the effect of which, when once brought before the understanding, is so completely uncontrollable by the will.

In consequence of these suggestions he applied himself to the subject, and produced the treatise on the Pursuit of Truth, which stands first in the volume, and which he presents to those who took an interest in his former Essay, in

the hope that it may prove a not unacceptable companion to it.

In respect to the second Essay, he has only to offer a remark on its external appearance. It is, as the reader will observe, in Dialogue, a form not very frequently used by modern writers in the exposition of philosophical views, and adopted on the present occasion rather by way of experiment than from any opinion of its preferableness. After considering what has been said by Hurd and others on the employment of real or fictitious, ancient or modern names, he has preferred designating his speakers by simple letters, as being less repulsive to the taste than any other expedient, except that of using the names of emi-

nent characters of past days, which he was precluded from adopting, because the opinions expressed in these conversations have reference to the actual times in which we live. This is a point after all of little importance in philosophical discussions, since the parts of the dialogue assigned to the different speakers are intended to exhibit opinions rather than character, and may be considered as only embodying in language the various views which successively present themselves to the same mind in reflecting on the subject selected.

The third Essay embraces topics which the author can scarcely hope will attract attention, except from that small number of intellectual men who have turned their

thoughts to the consideration of the foundations of human knowledge, a subject included along with many others of vital, although unappreciated importance to society, under the repulsive appellation of metaphysics. By these few, however, he ventures to hope that the treatise will be found of some interest, if not from the absolute originality of its views (on which it is not for him to pronounce), yet from the novelty and regularity of the order in which they are exhibited.

With regard to the whole of the Essays, he may venture to offer them to the public, and particularly to the friends who have expressed so indulgent an opinion of his former volumes, as the result of long continued, if not always

successful reflection. The greater part of the volume indeed was written out for the press four or five years ago, since which it has had the benefit of repeated scrutiny and revision. He mentions these circumstances, not to disarm criticism or to preclude animadversion, but as establishing a title to a careful and candid examination from his readers, especially from those who may see reason to differ from the conclusions at which he has arrived.

March, 1829.

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ERRATUM.

Page 19, line 1, for *monstrous* read *monotonous.*

ESSAY

ON

THE PURSUIT OF TRUTH,

AND ON THE

DUTY OF INQUIRY.

ESSAY I.

ON

THE PURSUIT OF TRUTH.

CHAPTER I.

INTRODUCTION. IMPORTANCE OF THE SUBJECT.

In the progress of society remarkable changes inevitably take place in moral sentiment. Actions formerly regarded as of trivial moment grow into importance; qualities at one time extolled sink into dubious virtues, or even positive vices; new duties are evolved from the novel situations in which men are placed, and the code of morality is amplified with rules which would have been unintelligible at a

previous period, because the circumstances to which they are applicable had not then arisen.

Such are all rules relating to the conduct of men in the acquisition and diffusion of knowledge. So long as science had no existence, as mankind were solely occupied with providing for their physical wants, or were continually engaged in the rougher work of mutual depredation and hostility, the pursuit of knowledge as a distinct object could not have place, and consequently the virtues and vices connected with it were unknown.

In our days a different posture of affairs presents itself. The acquisition of knowledge has become an object of immense interest and importance. The welfare of society in a thousand ways is deeply implicated in the rectification of error and the discovery of truth. Hence new relations arise, new obligations are constituted, a career is opened in which men may display numerous virtues and vices, in which there are various things to shun and to per-

form, and in which therefore we are called to discriminate and select.

It happens in this as in many other matters, that the moral sentiments of mankind are tenacious of their accustomed course, and reluctant to take a new direction. When men have been long habituated to look on any quality with approbation, they can scarcely divest themselves of the feeling, even though they discover the object no longer to deserve it; and they are slow in bestowing the same sentiment on qualities and actions by which it has not been familiarly excited. Thus the glare which has so long dazzled the human race with regard to warlike qualities and military achievements, still continues to bewilder them into an admiration of actions incalculably destructive to human happiness. Mankind have yet attained to no sound moral feeling on the subject, and it will require the reiterated efforts of philosophers to work into their minds the proper sentiments, with which the conqueror of nations should be regarded.

A similar remark may be made in reference to the pursuit of truth. Men at present lamentably err in apportioning their moral approbation and disapprobation to the actions of those who are engaged in intellectual efforts. They frequently smile on conduct which is fundamentally vicious, and pour their indignation on such as ought to warm them into admiration and applause. Nor are such mistakes to be wondered at. The morality of the subject, besides being comparatively new, involves some nice distinctions which cannot fail to be generally overlooked or confounded, till they have been clearly discriminated, and rendered plain and familiar by repeated expositions. In the following pages an attempt is made to ascertain and enforce the duties of man, in a matter so closely interwoven with his welfare, as well as to point out the erroneous principles which have sometimes been substituted in their place.

It is hoped that an honest and fearless endeavour to trace what our duty is in relation

to inquiry, will not in the present day be ill received. There is a growing disposition in the world, amongst the intelligent part of it at least, to prize truth and veracity, to look with disdain on all artifice, disingenuity, and disguise, to regard the business of life no longer as an affair which demands unremitted intrigue and perpetual deceit, to consider the great interests of humanity as not requiring to be supported by ignorance and superstition, to believe that suppresion and concealment can be of no service, except to the few at the expense of the many, and that every important question should be freely and boldly examined. In this state of feeling on the part of men of cultivated minds, a discussion of the conduct which we ought to observe in relation to the pursuit of truth seems to be peculiarly appropriate, and even if it fail of yielding entire satisfaction, may serve as a groundwork for more successful efforts.

As when an object is of little value we are not greatly concerned in what manner we

pursue it, the importance of this discussion evidently depends on the value of truth itself, on which in the present day it is scarcely necessary to insist. That it intimately concerns mankind, that not only the properties of external nature, but the consequences of human actions, the effects of different agencies on our sensibility, the results of the various combinations of society on individual happiness, the relations of man to other beings, should be precisely ascertained and accurately understood, is a proposition so undeniable when clearly expressed, as barely to escape the character of a truism. The overwhelming importance of this knowledge, is attested by the sad tale of error and suffering, which every page of history presents to our observation. What possible problem can mankind have to solve but one, how to make themselves conjointly as happy, and for that purpose as noble-minded and virtuous as they can during the short term of their mortal existence? And how have they hitherto solved this problem? In what numer-

ous ways have they proved themselves totally blind to their real interests, perverted their resources, exasperated the unavoidable evils of their condition, and inflicted gratuitous and unprofitable misery on each other and on themselves? It is clear that men can have no interest in suffering, no preference for unhappiness in itself, and wherever they are found in headlong career after it, it must be under an impression that they are in pursuit of a different object. It is error therefore, it is illusion, it is an incapacity on their part to see the real consequences of actions, the real issues of events, that gives rise to all those evils which desolate the world, except such as can be traced to the physical circumstances of man's nature and condition*.

The prevalence of misery, as the consequence of ignorance, shows at once the paramount importance of the pursuit of accurate knowledge. To discover truth, is in fact to

* "Error is the universal cause of the misery of mankind," are the first words of Malebranche in his Treatise on the Search after Truth.

do good on a grand scale. The detection of an error, the establishment of a fact, the determination of a doubtful principle, may spread its benefits over large portions of the human race, and be the means of lessening the misery or increasing the happiness of myriads of unborn generations. The great interests of mankind then demand, that the way of discovery should be open, that there should be no obstructions to inquiry, that every facility and encouragement should be given to efforts which are directed to the detection of their errors; and yet one of the greatest discouragements which at present exists, is the state of their own moral sentiments. Although he who has achieved the discovery of truth in a matter of importance has the satisfaction of reflecting that he has conferred a benefit on his fellowmen, to which time itself can prescribe no limits, the probability is, that instead of attracting sympathy and gratitude, he will meet with a considerable share of odium and persecution as the consequence of his perspicacity.

A state of things in which the real interests

and moral sentiments of the community are placed in strong opposition, cannot fail to be fruitful in evil, and he would perform no slight service who could hasten its termination. The likeliest means of doing this, is to show in a clear light what our duties in relation to inquiry really are; or in other words, by what conduct, in reference to the investigation of truth, the general interests are best promoted. Tardy as mankind show themselves in all changes of moral sentiment, they cannot permanently continue to bestow their approbation on qualities clearly proved to be pernicious, nor withhold it from actions, which are shown to be undeniably calculated for their welfare.

The subject has never yet, as far as the author knows, been systematically treated in the point of view here described. Locke indeed, in his Conduct of the Understanding, has thrown out excellent remarks on some of the topics which it embraces; and his treatise, which cannot be too warmly recommended, breathes an admirable spirit of right feeling

and sound judgment, in relation to the pursuit of truth. Malebranche too, in his celebrated work, *De la Recherche de la Verité*, abounds with instructive observations, encumbered nevertheless with antiquated matter and exploded doctrines, through which few in the present day will venture to toil. Neither of these distinguished writers, however, looked at the subject in the particular light in which it is the object of the following pages to place it; and even if they had, the lapse of a century and a half may be presumed to have brought us into a more favourable position for viewing it in its most important relations.

CHAPTER II.

ON THE STATES OF MIND FAVOURABLE AND UNFAVOURABLE TO THE PURSUIT OF TRUTH.

As the principal object of the present treatise is to ascertain the duties of man in relation to inquiry, or the search after truth, it is necessary to begin by examining what states of mind are favourable and unfavourable to success in that important pursuit. Unless we clearly understand these mental phenomena, we can fully comprehend neither how far they are within our control, to what extent they are matters of duty, nor in what manner they are affected by the circumstances in which we are placed. These states of mind may be classed for convenience under the heads of moral and

intellectual; the former comprehending our desires and emotions, the latter our opinions or modes of thinking.

In entering on any inquiry, we may have desires and affections connected with the subject, or with the issue of the examination, and preconceived opinions, which will have a material influence on the result. We may feel, for instance, a lively affection for a doctrine, an irresistible desire to find it confirmed by investigation, and a conviction of its truth not the less strong for having no dependence on any process of reasoning; or, on the other hand, we may feel an entire indifference, and have no opinion at all on the subject.

Amidst the varied conditions in which the mind may be, our business at present is to determine in what state, moral and intellectual, a man would be most likely to succeed in attaining truth on any question which he was called on to examine.

This is a problem not very difficult to solve. Every one must at once see, that a simple and

sincere desire to arrive at the truth, without any predilection in favour of any opinion whatever, and without any other disturbing feeling of affection or dislike, or hope or fear, is the moral state of mind most favourable to the success of inquiry. If a man is possessed with a desire to find a given opinion true, or to confirm himself in a doctrine which he already entertains, he will in all probability pay a partial attention to the arguments and evidence in its favour, to the neglect of opposite considerations; but if he is free from all wishes of this kind, if he has no predilection to gratify, if his desires are directed solely to the attainment of correct views, he will naturally search for information wherever it is likely to present itself; he will be without motive for partiality, and susceptible of the full force of evidence.

However unaccountable it may at first sight appear, it is a fact, that few human beings, in their moral, religious, and political inquiries, are possessed with this simple wish of attaining truth: their strongest wishes are directed

to the discovery of new grounds for adhering to opinions already formed; and they are as deaf to arguments on the opposite side as they are alive to evidence in favour of their own views. The pure wish to arrive at truth is indeed as rare as the integrity which strictly observes the golden rule to act towards others as we would wish others to act towards us. For this several reasons may be assigned. A principal one is, that men's interests are often indissolubly connected with the prevalence of certain opinions; they are therefore naturally anxious to find out every possible ground why these opinions should be held: their personal consequence too is often implicated in their support; they are pledged by their rank or office, or previous declarations, to the maintenance of a determinate line of argument, and they feel that it would be a disparagement to their intellectual powers and to their reputation, were it proved to be unsound.

Another reason is, that such opinions are sometimes really objects of affection, and things

of habit. We are accustomed to regard them as true, and it is troublesome to look at them in a different light; or perhaps we love them as the rallying points of pleasant ideas and cherished feelings.

In addition to all this, men are glad to find in their opinions some excuse for their practices. They naturally, therefore, wish to meet with a confirmation of those doctrines which are conducive to their self-complacency.

These, and other similar circumstances, create in the mind a desire to find some given opinion true; and of course, as far as their influence extends, extinguish the desire to find the truth.

Even when any one entertains a sincere desire to form correct opinions on any subject, the feelings or emotions with which it may be associated in his own mind may interfere to disturb his intellectual views. It is perhaps possible to conceive a man possessed with a genuine wish to arrive at the truth, notwith-

standing a feeling of affection or complacency for some particular doctrine; and endued with such self-control as not to allow a feeling of that kind to influence his mode of conducting the investigation; but it will inevitably influence his thoughts. All the favourable considerations will spontaneously rise to his view with more frequency and vividness than those of an opposite character.

The same effect will frequently take place from an apparently contrary cause. A man may feel a dislike for a certain conclusion; he may dread to find it true; and this very sentiment may so fix his view upon it as to assist in bringing about the conviction which he wishes to shun. There are certain fixed habitual feelings on some subjects, which have a remarkable effect in thus circumscribing the intellectual vision. One of the most striking of these is the sentiment of awe. If a man is habitually labouring under this feeling in regard to the general subject, or to the issue of the investigation, it is astonishing how limited will be the

range of his thoughts, how few and how monstrous the conceptions to which the subject will give rise.

It may be questioned, whether this kind of awe can exist in any intensity in a mind which is occupied with a genuine desire after truth; fear of the result of investigation at least can hardly exist there; but if even a fainter tone of the feeling predominate, it will prevent that quickness of conception, comparison, inference, which would otherwise be brought to bear on the inquiry. The fact is, however, that this state of mind is generally found attended by a desire to receive confirmation in our habitual opinions. Men are alarmed when, in departments of knowledge over which the solemnity of fear has diffused itself, they alight on any new ground, or in other words, on any doctrines at variance with received principles; and their wishes are usually pointed to a corroboration of the views with which they are already familiar, and which neither startle their timidity nor task their understandings.

From this brief review it appears that these emotions produce two effects: they create desires for some result other than the simple attainment of truth; and even when they create no desires of this kind, they suggest ideas which would not have otherwise entered the mind; or what is equally effectual, they prevent ideas from entering which would have otherwise been suggested.

Having considered the favourable and unfavourable moral states of mind connected with our subject, we proceed to the intellectual. In any given mind, the intellectual state most favourable for the attainment of truth is obviously freedom from preconceived errors. The pre-occupation of the understanding by erroneous opinions is one of the greatest impediments which offer themselves in the pursuit of accurate knowledge. The mere preoccupancy itself is an obstacle scarcely to be overcome; but as the opinions thus lodged are generally the objects of awe and veneration, the task of removing them becomes almost hopeless. No language can describe with

sufficient force the tenacity with which early received notions are retained: they seem to enter into the very essence of the soul, to weave themselves into the tissue of the understanding, till it transcends the power of conception to imagine them erroneous. Of those notions in particular, which are coeval with our earliest recollections, and the origin of which we cannot trace, we seem incapable of suspecting the falsity.

When such notions are combined with that kind of fear and awe which we have already described, there is no degree of absurdity to which they may not rise. A modern writer*, in his travels through Mesopotamia, relates that at Orfah (the ancient Ur of the Chaldees) the river and the fish in it are regarded as sacred to Abraham, and the inhabitants firmly believe, that if any of the fish were caught, no process of cooking could make any impression on their bodies. Here is a notion which any one

* Mr. Buckingham.

might at once put to the test by direct trial; a fact which they have only to stretch out their hands to verify or disprove; yet so thoroughly preoccupied are the minds of the people by the prejudice instilled in early infancy, such awe do they feel in relation to it, that they have not the slightest suspicion of its absurdity, and would think it profane to attempt to submit it to the ordeal of actual experiment.

Combining the states which we have attempted to describe, we have a union of qualifications which every lover of knowledge, every inquirer should aim at attaining; a simple desire to arrive at the truth, a freedom from disturbing passion, and a freedom from preconceived erroneous opinions.

Of these qualifications, the genuine desire for truth may be considered the most valuable. If it is not the mark, it is at least the indispensable attribute of a great mind. United with a large and comprehensive understanding, it places a man amongst the benefactors of his species.

Were men in general possessed with this desire in any great degree of purity and intenseness, many errors might undoubtedly still prevail in the world from the limited powers of the human intellect; but it is easy to see how much the progress of knowledge would be accelerated, and how soon the traces of illiberality and intolerance would be swept from social intercourse.

Men in fact are usually in the state here described when they enter on the study of physical and mathematical science; their sole object is to know all that is to be known, they seldom have any passions connected with the truths before them, and in general they are perfectly aware of their own ignorance.

In this chapter we have aimed simply at describing the moral and intellectual states favourable and unfavourable to the grand object of inquiry. How far they are subject to our control is a curious and interesting question, which will fall under our cognizance in a subsequent part of the present essay.

CHAPTER III.

IN WHAT CIRCUMSTANCES INQUIRY IS A DUTY.

It is our purpose in a subsequent chapter to inquire what are our duties in the pursuit of truth; but it seems necessary in the first place to ascertain in what circumstances the duty of investigation is incumbent, and to examine some objections which may be alleged against it.

A great majority of mankind may well be excused from devoting much attention to the investigation of any truths but such as directly relate to their immediate condition, or are offered spontaneously to their notice. Doomed to incessant labour, they are rather to be commended when they evince an anxiety for extra-

neous knowledge than blamed for betraying indifference. On those, who are elevated above this constant attention to the mere preservation of life, the duty of inquiry presses with varying force, according to their station and opportunities. Without pretending to a complete enumeration, we think we may state, that this duty is incumbent on all who can be brought under the following classes:—

1. Those whose professed office it is to teach others.

2. Those who voluntarily undertake to instruct others.

3. All those who have the means and opportunity of inquiry on subjects which have an important bearing on their moral actions or conduct in society.

It assuredly will not require many words to prove, that those who are called upon by their office to instruct others should diligently investigate the subjects they have to explain. The labour of inquiry is equally demanded of any one who voluntarily undertakes the same

task. In both these cases, inquiry is the only means which the parties have of satisfying themselves, that they are disseminating truth and not falsehood. Nothing can be more absolutely imperative. If I undertake to instruct others, I am under the strongest obligation to do all in my power to render myself competent to the function, and to take the utmost care not to delude or mislead. Instruction can have no legitimate object but to teach what is true; and it is a sort of practical contradiction to undertake it, without having bestowed the trouble of ascertaining what the truth is.

It is equally imperative on every one to undergo the labour of inquiry according to his means and opportunities, in regard to all subjects which have an important bearing on his conduct; which in other words furnish grounds for determining what that conduct shall be. Not to inquire in these cases, would be to take steps involving the happiness of ourselves and our fellow-creatures, without knowing or doing all in our power to learn the consequences of

those steps: it would be staking, in fact, our welfare and that of others on the mere chance of our being ignorantly in the right.

When the circumstances here described are combined, when it is a man's office to instruct others, and to instruct them on subjects having an important bearing on the common welfare, the duty of inquiry is raised to its highest pitch.

On all persons, who come under these three classes, it may be stated to be incumbent to pursue their inquiries till they can clearly trace satisfactory conclusions from undeniable premises. No one ought to be satisfied with his opinions on any subject of importance, much less ought he to inculcate them on others, unless he can trace their connection with self-evident principles.

It is not easy to imagine how this plain statement can be controverted or denied; yet there are frequent cases in actual life, where the duty of inquiry, if not positively rejected, is really evaded. There are several pretexts em-

ployed on these occasions: inquiry might lead to doubt or perplexity; to become acquainted with opposite arguments might shake the settled convictions of the understanding; to read the writings of adversaries might contaminate the mind with false views.

Every one who alleges such pretexts as these for declining inquiry, must obviously begin by assuming that his own opinions are unerringly in the right. Nothing could justify any man for declining the investigation of a subject which it is his duty to teach, or on which his opinions necessarily determine his social conduct, but the possession of an understanding free from liability to error. Not gifted with infallibility, in what way except by diligent inquiry can he obtain any assurance that he is not in the one case disseminating erroneous opinions, or in the other pursuing a course of injurious action? If he holds any opinion, he must have acquired it, either by examination, or by instillation, rote, or some process which he cannot recollect. On the supposition that he

has acquired it by proper examination, the duty on which we are now insisting has been discharged, and the matter is at an end. If he has acquired it in the other manner, if it is fast fixed in his understanding without any consciousness on his own part how it came there, the mere plea that his mind might become unsettled, can be no argument against the duty of investigation. For any thing he can allege to the contrary his present opinions are wrong; and in that case the disturbance of his blind conviction instead of being an evil is an essential step towards arriving at the truth.

There is no foreseeing how far the subtlety of interest and indolence may go, and it may be possibly assigned as a further reason for his declining inquiry, that he may come to some fallacy which he cannot surmount, although convinced of its character. If he is convinced of its character, he must either have grounds for that conviction or not. If he has grounds, let him examine them, draw them out, try if they are valid, and then the fallacy will

stand exposed. If he has no grounds for suspecting a fallacy, what an irrational conclusion he confesses himself to have arrived at! But he may reply—he may be unable to solve the difficulty, he may be perplexed, and the issue may be, that it would have been much better had he remained in his former strong though unenlightened conviction. Why better? If he is in perplexity, let him read, think, consult the learned and the wise, and the result will probably be, a definite opinion on one side or the other. But if he still remain in doubt, where is the harm, or rather why is it not to be considered a good? The subject is evidently one which admits strong probabilities on opposite sides. Doubt, therefore, is the proper sentiment with which to regard it: it is the result of the best exercise of the faculties; and either positively to believe, or positively to disbelieve, would imply an erroneous appreciation of evidence.

In the minds of some people, a strong prejudice appears to exist against that state of the

understanding which is termed doubt. A little reflection, however, will convince any one, that on certain subjects doubt is as appropriate a state of mind as belief or disbelief on others. There are doctrines, propositions, facts, supported and opposed by every degree of evidence, and many amongst them by that degree of evidence of which the proper effect is to leave the mind in an equipoise between two conclusions. In these cases, either to believe or disbelieve would imply that the understanding was improperly affected. Doubt is the appropriate result, which there can be no reason to shrink from or lament.

But it is further urged, that inquiry might contaminate the mind with false views; and therefore it is wise and laudable to abstain from it.

We can understand what is meant by contaminating a man's habits, or disposition, or even imagination. If a man read impure books, or works of extravagant fiction and false taste, his imagination will inevitably be

coloured by the ideas presented, and the conceptions which subsequently rise up in his mind will partake of the impurity and extravagance with which he has been conversant. But there is no analogy on this point between the understanding and the imagination. There is contamination in preposterous and obscene images crowding before the intellectual vision, notwithstanding a full and distinct perception of their character; but there is no contamination, no evil in a thousand false arguments coming before the mind, if their quality is clearly discerned. The only possible evil in this case is mistaking false for true; but the man who shrinks from investigation, lest he should mistake false for true, can have no reason for supposing himself free from that delusion in his actual opinions. That he should be more likely to escape from error without than with investigation, is a species of absurdity which requires no exposure.

On no plea, therefore, can investigation be declined. That it should unsettle a man's esta-

blished convictions, or that it should lead to ultimate doubt, may be a good: the one is the necessary preliminary to passing from error to truth; the other, if ultimately produced, is most likely to be the proper state of mind in relation to the particular subject examined. That inquiry should contaminate his mind is also a vain allegation. The only meaning which can be attached to the phrase, implies a misconception of falsehood for truth, a delusion, which inquiry is not only the direct means of preventing, but of dissipating if he is already involved in it.

Whoever fears to examine the foundation of his opinions, and enter on the consideration of any train of counter-argument, may rest assured, that he has some latent apprehension of their unsoundness and incapacity of standing investigation. And as a fear of this sort is totally at variance with that spirit of candour and fairness which we have already seen to be the proper disposition for the attainment of

truth, no man should suffer it to prevent him from boldly engaging in the requisite examination. A great deal of invective has been levelled at free-thinking. The only distinction worth attending to on this point is that between accurate and inaccurate, true and false. Thinking can never be too free, provided it is just.

CHAPTER IV.

EXAMINATION OF CERTAIN PREJUDICES ADVERSE TO INQUIRY.

BESIDES the objections to inquiry examined in the last chapter, there are some other prejudices of a similar character, which as long as they prevail must form serious impediments to the attainment of truth.

One of these is a fear that we may search too far, and be guilty of presumption in prying into things we ought not to know: another prejudice is, that we may contract guilt should we arrive at erroneous conclusions, or conclusions at variance with such as are established; and another, that it is a sort of praiseworthy humility to acquiesce in received opinions, on

the authority of others, and refrain from thinking for ourselves.

A brief space will not be ill bestowed in setting these prejudices in their true light.

As to the first, a few words will suffice to prove that nothing can be more irrational and unfounded. We have shown in another place* that truth is conducive to human happiness; the attainment of it, one of the highest objects of human enterprise; and the free exercise of our faculties on all subjects, the means of securing this invaluable blessing. If this is a correct representation, investigation is a pursuit in which there is every thing to hope and nothing to fear, and to which there are no limits but such as the nature of our own faculties prescribes.

It is not easy to conceive with exactness what can possibly be apprehended from inquiry; what is the precise danger or difficulty

* Essay on the Publication of Opinions.

it is expected to involve us in; what is implied in the fear that we may search too far. Some indeed appear to have imagined that inquiry might conduct us to forbidden truths.

As there are secret transactions amongst our superiors in society, or even our associates, which we should be culpable in prying into; sealed documents circulating in the world, sacred to those whose names they bear, and not to be scrutinized with honour by any of the intermediate agents through whose hands they pass; records of private affairs, kept solely for the use of the individuals concerned in them, and which we are not to come upon by stealth, and rifle of their information: and as to infringe the privacy of these matters would be stigmatized as indelicate, meddling, presumptuous; so it seems to be supposed that there are closed documents in nature into which we are forbidden to look, private processes going on into which we have no right to intrude, truths existing which are not to be profaned by our scrutiny, and to attempt to make

ourselves acquainted with these is unjustifiable audacity and presumption. If this prejudice does not often assume the definite form here ascribed to it, it may frequently be found exerting an influence without a distinct consciousness in the mind over which it prevails.

A more striking instance of a completely false analogy could not be adduced. There is not a single point of resemblance throughout the whole field of knowledge to these little secrets, the offspring of human weakness, or the indispensable resources of human imperfection. There is no secret in the natural or the moral world, sacred from the investigation of man. Here there can be no presumption, no undue boldness, no counterpart at all to the audaciousness of one man intruding upon the privacy of another. All that man has to guard against, and that simply for his own sake, is error; his vigilance is required only to ensure that his facts are properly ascertained, and his inferences correctly deduced. The presumption he has to repress, is not any presumption

in relation to other beings in possession of secrets, which he is trying clandestinely to wrest from them, but merely the presumption of drawing positive and ample conclusions from doubtful and slender premises, of supposing that he has discovered what he has not, that he has succeeded where he has only failed, that he has done what still remains to be accomplished; in a word, the presumption of overrating his own achievements. Here indeed a man may err in self-confidence, but an evil cannot obviously arise from searching too far, which is best remedied by searching farther, by closer reasoning and more rigorous investigation.

The strangest absurdities indeed would be involved in the supposition that we could possibly reach to knowledge, which we ought not to attain. We are placed in this world by the Creator of the universe, surrounded with certain objects and endowed with certain faculties. From these objects, with these faculties, it is implied by the hypothesis under consi-

deration, we may extort secrets which he never designed to be known, extract information which Omnipotence wished to withhold!

The second prejudice above enumerated, that we may contract guilt if in the course of inquiry we miss the right conclusion, is still more prevalent and influential. On a former occasion* we have shown, that nothing can be more at variance with reason, than an apprehension of this nature. As our opinions on any subject are not voluntary acts but involuntary effects, in whatever conclusions our researches terminate, they can involve us in no culpability. All that we have to take care of, as we shall more largely show hereafter, is to bestow on every subject an adequate and impartial attention. Having done this we have discharged our duty, and it would be irrational and unmanly to entertain any apprehension for the result.

In fact, there is the grossest inconsistency in

* Essay on the Formation of Opinions.

the prejudice now under consideration. If we may contract guilt by inquiry, we may contract guilt by remaining in our present state. The only valid reason which can be assigned, why we may commit an offence by embarking in any inquiry is, that we may miss the right conclusion; but it is obvious that we may equally miss it by remaining in our actual opinions. It is then incumbent on us to know, whether we are committing an offence by remaining in our present opinions; in other words, it is necessary to inquire whether those opinions are true; thus the reason assigned for not inquiring, leads itself to the conclusion that it is necessary to inquire.

We may also remark, that this prejudice is obviously at variance with the obligations of morality, which we have stated in the last chapter, and that so far from its being wrong, it is our actual duty to inquire where inquiry is of importance, a duty constituted by the consequences with which our conduct in this respect is attended.

A man, indeed, after the best and most dis-

passionate investigation of an important subject, may naturally feel a degree of anxiety lest he should after all have missed the truth; but in this anxiety there is not, or ought not to be, the slightest admixture of moral uneasiness. It is an anxiety, lest his conclusions, when they come to form the grounds of his actions or of his instructions to others, should lead to consequences which he did not anticipate. His conclusions may be wrong, and the consequences disastrous; but if he has a proper view of the matter, there will be none of the stings of remorse, not the faintest accusation of conscience. Having inquired to the best of his power, he has done all that depended on himself, and would exhibit little wisdom were he to torment himself with reproaches for an unfortunate issue.

The third prejudice we have to consider is, that acquiescence in received opinions, or forbearing according to the common phrase to think for ourselves, evinces a degree of humimility highly proper and commendable.

If we examine the matter closely, neverthe-

less, we shall find that it usually evinces nothing but a great degree of indolent presumption or intellectual cowardice. There is often, in truth, as great a measure of presumption in this species of acquiescence as in the boldest hypothesis which the human invention can start. That received or established opinions are true, is one of those sweeping conclusions, which would require very strong reasons and often elaborate research to justify it. On what grounds are they considered to be true by one who declines investigation? Because (on the most favourable supposition) they have been handed down to us by our predecessors, and have been regarded with conviction by a multitude of illustrious men. But what comprehensive reasons are these! What investigation it would require to show they were valid! As the whole history of mankind teems with instances of the transmission of the grossest errors from one generation to another, and of their having been countenanced by the concurrence of the most eminent of the race; what

a large acquaintance with the peculiarities of the generations preceding us, and the circumstances of the great men to whom we appeal, it would require to show that this particular instance was an exemption from the general lot!

It is then no humility to refrain from inquiry; on the contrary, it is the proper kind of humility; or if it is not humility it is the proper feeling for the occasion, to be determined to do all in our power to make ourselves acquainted with every subject on which it is necessary for us to pronounce or profess an opinion.

From the necessity of using our own judgment, or in other words of forming a conclusion for ourselves, we cannot be absolved. We must form our opinion either of the doctrine itself, or of the comparative degrees of confidence to which those men who have studied the subject are entitled; and it is evident that in the case of disputed doctrines, the latter is as difficult and demands as much investigation, as much knowledge and acuteness of

judgment, as to come to a decision on the original question.

Let no one then deceive himself by supposing, that he is exercising the virtue of humility, or modesty, or diffidence, when he is in fact resting in a conclusion which to reach legitimately would require so much knowledge and ability. Far from being a virtue indeed, this kind of acquiescence is in most cases a positive vice, tending to stop all inquiry and all advancement. In certain circumstances, as we have already shown, it is an imperative duty to enter upon a rigorous examination of all the evidence within our reach.

From the preceding review, it appears that all these prejudices are equally unfounded; that there are no forbidden truths, to which inquiry may conduct us; that the result of inquiry, whatever it may be, can involve us in no criminality; and lastly, that it is no true humility to refrain from investigation in deference to the authority of others.

Let the inquirer then enter on his task with full confidence that he is embarking in no criminal, or forbidden, or presumptuous undertaking. Let him be as circumspect as he pleases in collecting his facts and deducing his conclusions, cautious in the process, but fearless in the result. Let him be fully aware of his liability to error, of the thousand sources of illusion, of the limited powers of the individual, of the paramount importance of truth; but let him dismiss all conscientious apprehensions of the issue of an investigation, conducted with due application of mind and rectitude of purpose.

As there are some prejudices which are hostile to inquiry, so there are some principles of an opposite character, the full and adequate conviction of which essentially conduces to promote it. Amongst these is the truth that knowledge is progressive, and that in this progress every age is placed in a more advantageous position for the comprehension of any subject of science than the last. Every in-

quirer, therefore, finds himself on higher ground than his predecessors; he can avail himself of their latest acquisitions without the labour of original discovery, and thus with unbroken spirits, and unsubdued vigour, he can commence his career at the ultimate boundary of theirs. Hence, without any presumption in the superiority of his faculties, he may hope to attain views more comprehensive and correct, than were enjoyed by men who immeasurably transcended him in capacity. All the advantage, nevertheless, which he has over his precursors, his successors will have over him. All his exertions will tend to place them above him; and the very truths which he discovers, should he be fortunate enough to discover any, will give them the power of detecting the errors, with which all truths on their first manifestation in any mind are inevitably conjoined.

In such considerations as these there might be something to deter a man of narrow views and selfish feelings. That his opinions should

be thus scrutinized and examined, and their imperfections detected; that in process of time he should lose his rank as an oracle on the subject of his exertions, and be superseded by after-sages, might have any other effect than that of stimulating him to exertion. To a man of real genius however, a man of large and liberal understanding, and as large and liberal feelings, these considerations are at once replete with satisfaction and encouragement, and destructive of undue self-importance and complacency.

When he looks back on his predecessors, he appreciates the advantages of his position, and can thus without undue self-estimation, indulge a fair hope that by strenuous exertions his own works may form one of the steps in the intellectual progress of the race, and constitute him the author of benefits to be indefinitely perpetuated. When he looks forward, while he exults in the coming glories of progressive knowledge, and anticipates with delight the development of truths which he is never to

know; he feels a perfect confidence that any real service which he may render to literature or science will be duly appreciated, and rejoices that any errors into which he may unconsciously wander will do little injury, because they will be speedily corrected.

Knowing that were he even the Newton of his age, he must be eventually outstripped, he considers such an incident as no wise derogatory to his talents or reputation: agitated by none of the jealousy which is too common a disgrace to men who ought to rise superior to the weakness of such a passion, he even feels a desire that he may be outstripped in his own life-time, a curiosity to know by what modifications his own doctrines will be corrected: he is on the watch for new discoveries, because he knows that there are minds which having mastered preceding knowledge are in a condition to make them.

It has been frequently stigmatized as presumptuous and overweening vanity in a man of the present day to fancy himself superior to

men of past times; but the view of the subject here exhibited annihilates all such imputations. It takes away all colour of disrespect from the closest scrutiny of the efforts of his predecessors. He is conscious that in the most successful controversy, if controversy it may be called, which he may institute with them, the greatest success cannot be considered as any personal superiority on his part over the object of his remarks; he knows that it is the superiority of the station to which his own times have carried him; and thus the profoundest respect is compatible with the freest examination. What does he admire in the great philosophers of past ages? Not surely their errors, perhaps not one of their unqualified opinions; but he admires the reach of thought, which, from the then level of knowledge, could touch on truths, the full and perfect mastery of which was to be the work of future ages, the slow result of the successive efforts of persevering and vigorous minds.

Such a view of the progressive character of

human knowledge as this would wonderfully facilitate the pursuit of truth. No single principle with which we are acquainted would have so salutary an influence in promoting candour, liberality, openness to conviction, self-knowledge, proper caution, and proper fearlessness.

CHAPTER V.

ON THE DUTIES INCUMBENT ON MANKIND IN THE PURSUIT OF TRUTH, OR IN THE PROCESS OF INQUIRY.

It is almost an identical proposition, that on every subject it is important for man to understand clearly what his duty requires of him. While this is universally acknowledged, it is sometimes overlooked, that it is equally important for him to know also what it does *not* require. It may be questioned, indeed, whether more evil has not arisen in the world from his regarding useless actions, pernicious actions, and actions not within his power, as required of him by moral obligation, than from his leaving out of the code of duty such as are of a contrary character. As to pernicious actions,

a syllable would be superfluous to show, that it must be fraught with mischief to consider them as duties, and consequently both to encourage and commit them. And with regard to useless actions; to erect them into so many imperative obligations, besides creating confusion in our moral sentiments, where perfect distinctness and precision are of the highest value, and inflicting injury (as the prevalence of error cannot fail to do) on our reasoning powers, brings upon mankind all the evils of needless restraint and profitless compunction.

It is equally if not more pernicious to regard ourselves and others as responsible for actions or events, over which we have no control, which we can neither produce nor prevent. The unhappiness reciprocally sustained and inflicted in consequence of the omission of imaginary duties not in any body's power, the needless constraint, the doubts and fears and misgivings, the disputes and dissensions proceeding from such erroneous feelings of moral obligation, are

attested by the melancholy history of human superstitions.

Men are peculiarly liable to erroneous sentiments of this kind, when the scene of the events in question is partly or wholly in the mind; when they are events of a sensitive or intellectual nature, or external actions so mixed up with mental processes as to baffle the efforts of ordinary discrimination to separate them.

These remarks will be found strikingly applicable to the subject before us. In regard to the pursuit of truth, there are certain things which are wholly in our power, while on the other hand there are intellectual processes and states of mind not within our control; and these ought to be clearly and accurately discriminated, that we may satisfactorily ascertain what in this important matter it is incumbent on us to do.

It has been frequently enjoined on the inquirer, that he should dismiss all predilection

from his mind, all prejudices, all fear and hope, and affection, and hatred, and other passions, and approach the consideration of a subject with that perfect indifference which would be the most effectual security for the ultimate attainment of truth. That this is the proper state of mind for the occasion, we have already shown. We have seen that the appropriate qualifications for an inquirer are a desire to arrive at truth, a freedom from disturbing passion, and from preconceived errors. And, undoubtedly, were it practicable to generate in ourselves the state of mind here described, we should be bound to do so by the clearest obligations of morality; but we must all know, from our own experience, how impossible it is to divest ourselves of these feelings and preconceptions by a mere effort of the will. A man who has been brought up in ardent admiration of certain doctrines, a strong affection for them, and an unquestioned conviction of their truth, has no power to lay down these feelings at pleasure. They have been the slow

result of years, the growing product of innumerable circumstances; and we might as well ask him to divest himself of the recollections of his youth as of these affections for what he was taught in it. As it is injurious to require or to aim at more than can be possibly accomplished, it is necessary to ascertain what in this respect is practicable. All that can be expected from a man in the circumstances here described (and the task is arduous enough for the strongest powers and greatest integrity of purpose), appears to be to make himself perfectly acquainted with the state of his own mind. If he becomes fully aware, that he has by education, or other circumstances, not only a strong conviction of a doctrine, but an ardent love for it, without ever having scrutinized its foundation, and ascertained the propriety of his sentiments, this thorough insight into the state of his understanding and affections is the best security which the nature of the case will allow against the influence of such prepossessions. The more closely he examines him-

self, the freer he will be from the danger of improper bias.

The same remarks will apply in the case of hostility entertained against any doctrine; and in general in all cases, where a passion or affection from any cause precedes the inquiry which we institute.

It is plain that such an examination will especially tend to loosen the power of all preconceived notions. To be fully aware that the opinions we have hitherto held exist in our understandings simply because they have been placed there by others, and not as the result of any process of reasoning on our own parts, is almost tantamount to the power of extirpating them from our minds before we commence the proposed investigation.

However difficult it may be for a man to bring himself into the most favourable state of mind for the attainment of truth, the next step is entirely in his power, and that is to conduct the examination of any subject with diligence and impartiality. If it is proved in regard to

any subject, that it is a man's duty to investigate it, it is equally proved that it is his duty to pursue the inquiry in a manner calculated to attain the end in view. The same reasons which require him to examine, demand that the examination should be complete and impartial. As without examination he can have no security that he is teaching truth or acting on just principles, so he can have no security on these points, unless the examination be conducted in the likeliest manner to attain a correct result.

His investigation must be made in the first place with care and diligence. A difficult subject (and most disputed subjects are either naturally or factitiously difficult) is not to be mastered with a cursory attention. It has been well remarked, that no complex or very important truth can be transplanted in full maturity from one mind to another; it must be sown, strike root, and go through the whole process of vegetation, before it can have a living connection with the new soil, and

flourish in complete vigour and development*.

We are apt to be deceived in this respect on subjects relating to morals. The terms employed are such as are daily used in the common intercourse of life, and we imagine we at once comprehend any doctrines which they are the medium of expressing. In physical science, where at every step we are encountered by the difficulties of a technical phraseology, as well as of practical observations and experiments, we immediately feel the necessity of a regular application and progression, of mastering one principle before we proceed to the next, of carrying our object by detail, working our way by vigorous and reiterated efforts.

* The exact words of the passage here referred to are as follows: "No complex or very important truth was ever yet transferred in full development from one mind to another: truth of that kind is not a piece of furniture to be shifted; it is a seed which must be sown and pass through the several stages of growth."—*Letters to a Young Man whose Education had been neglected.*

In morals, on the contrary, we are too apt to be content with mere cursory reading: no difficulties are presented by the language, no unusual terms arrest our progress, no particular experiments demand a pause to verify them, and we glide smoothly along the pages of the profoundest treatise, with an apparently clear apprehension of the various propositions we meet with, but in reality with a vague conception of their full drift and precise meaning. Hence, people are often deluded into fancying themselves competent to pronounce a decision on questions requiring severe study, great nicety of discrimination, and close logical deduction. These results are partly occasioned also by love of ease, and reluctance to intellectual exertion. On difficult subjects, inquiry, it is not to be concealed, is laborious; and the natural indolence of most men induces them to stop short of that vigorous application which difficulties require for their solution.

Impartiality of examination is if possible of still higher value than care and diligence. It

is of little importance what industry we exert on any subject, if we make all our exertions in one direction, if we sedulously close our minds against all considerations which we dislike, and seek with eagerness for any evidence or argument which will confirm our established or favourite views. What duty and common sense require of us is, that our attention be equally given to both sides of every question, that we make ourselves thoroughly acquainted with all the conflicting arguments, that we be severely impartial in weighing the evidence for each, and suffer no bias to seduce us into supine omission on the one hand, or inordinate rapacity for proof on the other.

This too is any thing but a light and easy task. It can be performed to a certain extent by every honest and sincere inquirer; but perhaps to accomplish it in perfection, would require a mind at once enlarged, acute, candid, disinterested, and upright. A man who perfectly accomplishes it, however, cannot fail to

command the esteem of his fellow men by the worth and dignity of his conduct. It is painful to think that such an example is rare; that instead of it we usually find the mere partisan, one evidently engaged not in the pursuit of truth, but in searching for every possible argument to support and confirm a conclusion, predetermined by his interest, his prejudices, or his position in society.

What a contrast do these two present: one candid, upright, fearless of the issue of the investigation because solely intent on truth, searching on all sides, refusing no evidence, anxious only that every circumstance should be brought out in its true colours and dimensions, and free from anger against opposition; the other directing all his acuteness to one side, prying into those sources of information alone where he imagines he shall find what is agreeable to his wishes, stating every thing both to himself and others with the art and exaggeration of a hired pleader, sounding forth

the immaculate merits of his cause, and filled with rancour against all who do not range themselves under the same banners.

From the lenient manner in which the faults of negligent and unfair investigation are generally treated, it might seem that they are of small consequence and light turpitude. To pronounce them so, however, under the circumstances described in a former chapter, would be little better than an express contradiction. When any one has to discharge the office of instructing others on the subject of inquiry, or when that subject has an important relation to his social conduct, the vices of partial and inadequate examination must, by the force of the terms, be of serious moment. Besides, considered in a more comprehensive view, as to their effects on the human race at large, far from being of trivial consequence, they are sources of great evil. They are nothing less in fact than impediments to the natural progress of mankind in becoming acquainted with what is for their real happiness,

and consequently they are impediments to that happiness itself.

The only improvement in the condition of mankind, that can be rationally expected, is from their gradually emancipating themselves from the various errors and multiform ignorance in which they are involved. Society commences in barbarism, it becomes very slowly enlightened: every step of the progress implies the discovery of new truths, or a departure from errors to which it has been accustomed, from notions established, and practices consecrated by years. To accomplish this, to discover truth and to detect error, investigation is the direct means: the more diligent and impartial the inquiry, the surer the progress, and the faster the improvement.

It follows, that to deny the importance of investigation, and the importance of conducting it with diligence and fairness, is to deny the value of the means of improvement, and of using those means in the best manner. If then we are under any obligation to consult

the general welfare, diligence and fairness in our inquiries are not only recommendable qualities, which it would be well for us to exercise, but they are positive duties, which we cannot neglect without actual culpability.

And further it is of great importance to our moral principles in general, that we should cultivate the spirit of fairness in research and controversy. While there is so much laxity and want of discrimination in regard to candour and uprightness in the prosecution of our inquiries, while research on the most momentous subjects may be neglected or perverted with impunity, we cannot expect to find the spirit of integrity carried to its highest perfection in the commerce of life. From one who exhibits a want of proper diligence and scrupulous impartiality in his treatment of evidence in literature or science, it would be vain to look for uncompromising integrity when he is called to adjust the contending claims of his fellow-men, or to decide between his own rights and those of others. In both cases the

same qualities are demanded, and if they are neglected in the one, they will be weakened in the other.

Not only however is it rare to see these qualities exemplified in the most important questions, but nothing is commoner than virtual if not direct recommendations to act in contradiction to them. What is the conduct of many of those who take upon themselves the office of public instruction? Do they recommend that on any important question you should pay equal attention to both sides of the controversy? that you should read the books which have been written against their own opinions as well as such as have been produced in their favour? that you should endeavour to be strictly impartial, and scrutinize their arguments with as much severity as you employ on those of their opponents? Is their language "read, examine for yourselves, draw your own inferences, impartially investigate; we present you with our conclusions and the reasons on which they are founded; we believe them to be strong, but put

them to the test; assist us by pointing out any fallacies you may descry; let us be coadjutors in the grand cause of truth?" Is it not on the contrary, "the doctrine we announce is the only one which can be free from error; avoid all those writings which are opposed to it as you would avoid the contamination of the plague; do every thing in your power to banish any opposite suggestions from your own minds; shun the moral turpitude of doubting what we teach; fear and confide?"

If, however, the positions we have laid down are true, if it is a man's duty to examine, and to examine with diligence and impartiality, it is also his duty to recommend the same course to others. If it would be morally wrong in himself to abstain from the investigation of both sides of a question, to bestow all his attention on arguments of one tendency, to banish as far as he could all opposite suggestions instead of giving them a fair and candid examination, then he must stand convicted of a moral offence for urging upon others the same conduct. On this point

there can be no compromise. It is either right or wrong to be partial in our investigations. If it is wrong to be partial, it is wrong to recommend and enforce partiality; it is a departure from the distinct line of duty, a deviation from candid, upright, and honourable conduct. This representation, it will be observed, by no means implies that a man should refrain from urging his opinions with all the arguments in his power; but the moment he begins to teach the necessity of thinking as he does, to set forth the guilt of dissenting from his doctrine, and to insist on the avoidance of all opposite considerations, that moment he commits an offence against the moral law of truth.

The preceding remarks, if they are at all valid, show that the whole of our duty in relation to the pursuit of truth or to inquiry, is comprehended in adequate and impartial examination; examination in the first place of the state of our own minds in reference to the subject of inquiry; and secondly, examination

of the subject itself and of the evidence appertaining to it.

It is not possible, we apprehend, to state any duty connected with the matter, which may not be resolved into one of these.

To this conclusion, there is a prevalent notion opposed; that it is a man's duty to believe certain prescribed doctrines. What these doctrines are indeed is not by any means settled, but that there are some which it is a duty to believe almost all unite in pronouncing.

The simple consideration, that belief is not a voluntary act, is sufficient of itself to dispose of this proposition; but a few words will not be wasted in trying to exhibit the inconsistency of a notion which is at the bottom of much human misery.

If there is any correctness in the preceding conclusions of this treatise, when in certain cases doctrines or propositions are presented to our minds, it is our duty to inquire into their truth. Whether these are new propositions, or propositions which we have held

without investigation from the first dawn of consciousness, is not material. Circumstances present them to our minds as demanding inquiry into their truth, and our duty is to examine. It is obvious that in this stage of the business at all events, it is not our duty to believe them. To examine them is to investigate whether they have a title to belief or not; and if it is our duty to ascertain whether they have claims on our credence, it would be absurd to argue that it is incumbent on us to begin the investigation by admitting the claims into the validity of which we are inquiring. If there is any duty of the kind incumbent on us, it must be at a subsequent stage. We proceed, we will suppose, in the examination with adequate diligence and strict impartiality. In this process there is evidently still no duty of belief to perform. All that we have to do is to be fair, candid, and diligent. We finally close the investigation, and the state of our understandings in relation to the subject examined (on the supposition that the process

has been conducted in the manner described), is obviously the unavoidable and involuntary result: that is, it is the necessary result of an investigation entered into because it was our duty to enter into it, and conducted throughout in the manner our duty prescribed. That this result should be a given, a pre-ordained result, cannot therefore be a duty.

It would be an extraordinary thing indeed for any one to say to us, "it is your duty to inquire into this doctrine and to conduct the examination with strict fairness and integrity; but although you do all this, unless your examination terminate in a belief of the doctrine you will be morally culpable."

It will probably be objected, "your culpability arises from this, that you did not do all in your power to believe the doctrine." Do all in our power to believe? Why should we? On what grounds of duty? Previous to examination the doctrine is not to us a truth, it is merely a proposition offered to our scrutiny: why then should we wish to believe it, or do

all in our power to believe it? The proper wish on such an occasion, as we have seen, is not to find any proposition true, but to find the truth; and in regard to doing all in our power to believe, if this implies, as it obviously does, paying more attention to the considerations on one side of the question than those on the other, it would be a positive violation of duty, an infraction of that rigid impartiality which has already been established as an imperative obligation.

But the objector replies, "you have suffered your passions to interfere; it is perversity of heart and malignity of disposition, which have rendered propositions incredible to you that have been admitted by others." If this accusation is meant to apply to the manner in which we have designedly treated the evidence, then as by the supposition we have conducted the examination with fairness and diligence, it is manifestly out of place. But if the intention of it is to charge us with being possessed by passions, which have involuntarily on our parts exag-

gerated some portions of the evidence and weakened others, and thus led to erroneous conclusions, we reply: 1. This is a mere gratuitous assumption. 2. It is at all events an involuntary error which is charged upon us. 3. Since by the supposition we have conducted the examination with perfect fairness, notwithstanding our suffering under these passions, the greater is our merit. 4. The circumstance of having conducted it fairly ought to be received in the absence of all other evidence, as conclusive proof that no such passions have prevailed. 5. As we have just the same grounds for throwing such an imputation on our opponent, we may with equal fairness suppose, that in forming an opinion different from ours, he has been influenced by some of these reprehensible passions.

At this point the objector will probably say, "you have made suppositions which I cannot allow; you have supposed that an investigation may be conducted with fulness, fairness, and impartiality, and not end in the preordained result, in the prescribed opinion:

now this I deny. If the investigation had been diligently and fairly prosecuted, there is only one opinion in which it could have ended. That it has terminated differently is a full proof of some vice in the process,"

This we believe is a correct representation of what passes in the minds of those who condemn others as morally culpable for their opinions. Tacitly assuming themselves to be unerringly in the right, they conclude that others could not have differed from them had they fairly examined.

To an objector of this class it is easy to answer: "we might with equal fairness and propriety charge the same vice upon you. What reason can you have for maintaining that all fair and diligent examination must end in the belief of your opinion, which we may not have for asserting the same thing in favour of our own?"

He may possibly reply, "The reasons for my opinion are superlatively strong. I cannot conceive it possible that any one who candidly examines can resist them; they have convinced

the best and greatest minds; they have never been refuted."

We answer, "all these phrases are only expressions of the strength of your own conviction. As to the reasons for your opinion, we have examined them, and they appear to us outweighed by opposite considerations. Your conviction of their force is not greater than that which we entertain of the strength of the arguments on our side of the question. Our opinion, too, has been held by men of powerful minds; and if it had not, there is nothing in the circumstance of powerful minds having held an opinion which can possibly strengthen the direct evidence in its favour to one who examines it. To one who does not examine, authority may be a valid argument; to one who does, authority in opposition to his own views is nothing but an inducement to examine more closely, to suspect unperceived fallacies, to seek for additional evidence, to review all his own inferences, and try every part of the chain which connects them with acknowledged

premises. You will perceive therefore that we have as great a right to adopt the language of infallibility as you have."

The proceeding of such an objector as we have here supposed is nothing more or less than making the coincidence or discrepancy of the opinion of any inquirer with his own opinion, the criterion whether the inquiry has been properly conducted.

This it is obvious can never be admissible. In all arguments the disputants are to be placed on equal terms; nothing must be granted to one that is not to another. If this sort of procedure were conceded to any, it must be conceded to all, and it is easy to see that all argument would be at an end. But the good sense of mankind, with a happy inconsistency, often saves them from the legitimate consequences of their own principles. While every one might arrogate such a privilege to himself, he would see the folly of a claim to it on the part of another.

Were we asked what criterion then we would

propose of fairness and unfairness in the process of investigation, we answer that there are two sets of circumstances by which we may guide our judgment on that point. First, we may form a general presumption from a man's known personal qualities and habits. We may, for example, fairly presume, that by a man of strict integrity in other matters no wilful partiality has been exercised in the examination of any question which he has been called to investigate. In the absence of express evidence to the contrary, this would be the only just inference. A man's personal qualities and habits, however, are known only to a few, and even when known they cannot be considered as specific evidence of particular facts. We have much more exact grounds for deciding on the fairness or unfairness of his investigations in the second set of circumstances referred to, namely, the qualities which he actually exhibits in producing his opinions to the world. Diligence, candour, uprightness, impartiality on the one hand, and indolence, dis-

ingenuousness, unfairness on the other, are qualities which belong as well to the mode of stating to others the evidence and arguments on any subject, as to the mode of conducting inquiry, and reveal the character of those efforts which have been made in the secresy and silence of the closet. From the opinion of any one barely expressed, we can learn nothing of the process by which it has been formed; but let him produce his arguments, his authorities, his moral sentiments, and he furnishes us with sufficient data to decide on his fairness and integrity: at least we have no concern with the course of application in which his opinion has originated, except so far as these data betray it.

The qualities we have enumerated are often as distinctly displayed in a man's compositions or conversation, as they are in any part of his conduct. Who can mistake the language of sincerity and singleness of purpose, for that of interestedness and duplicity? who the colourings and exaggerations of party pleading for

the honest exposition of the inquirer after truth?

Some one has sarcastically said, that language was given to man to conceal his thoughts. In vain, however, would he employ it to conceal his moral qualities.

In any long tissue of sentiment and reasoning, the real properties of the mind will manifest themselves. It is as impossible for the mean, hypocritical, servile spirit to assume through any long investigation the moral carriage of the liberal, the candid, the upright, the noble, as to produce in itself the feelings by which they are animated. The greatest art will not suffice to suppress certain infallible symptoms of what lurks beneath the surface, while it will be totally incapable of producing, because utterly unconscious of many other indications, universally attending the qualities which command our esteem and admiration. He who takes up his pen for the gratification of any unworthy passion, spleen, hatred, revenge, or whatever it may be, may rest as-

sured that the chances are ten thousand to one against a successful concealment of his actuating principle.

Of all the faults which authors and teachers commit in their controversies, perhaps none deserves exposure more than the practice of pronouncing on a man's fairness, good feeling, and integrity, not from the usual indications of those qualities, but from the nature of the conclusions at which he has arrived. Neglecting all the various causes which inevitably generate differences of opinion, and which fully and satisfactorily account for the widest discrepancies that exist, they can find nothing to which they can ascribe a deviation from their own tenets, but perversity of heart or malignity of purpose, and the sole evidence they look for of these criminal dispositions is that difference of opinion itself.

CHAPTER VI.

ON THE INFLUENCE OF THE INSTITUTIONS AND PRACTICES OF SOCIETY ON THE PURSUIT OF TRUTH.

HAVING examined the states of mind favourable and unfavourable to the success of inquiry, and investigated the conduct which it becomes the inquirer to pursue, we may now proceed to the examination of such practices and institutions in society as have a tendency to beget those states of mind, and to influence that conduct.

Were we to imagine a system the most favourable to the pursuit of truth, it would of course be one by which no partialities or antipathies were created, and no inducements held out to an inadequate or unfair examina-

tion; a system, in short, which left conclusions or doctrines unnoticed, and if it interfered at all, extended its encouragement to enterprize in undertaking, and diligence and fairness in conducting investigation. If a simple wish to arrive at correct conclusions is the proper state of mind in which to enter upon any subject, and a strictly impartial attention to the conflicting evidence the proper conduct to be pursued during the examination, every practice or institution in society which creates other wishes, and offers inducements to pursue a different conduct, must be pronounced inimical to the attainment of truth.

Amongst these we must rank institutions bestowing emolument on individuals, with the stipulation that they teach certain doctrines definitively prescribed. It must be acknowledged, that institutions of this character are likely to have great influence over the moral and intellectual condition and conduct of those who come within their sphere. He who enters into them has no choice as to what he shall

teach. He must either conform to the prescribed doctrines, or quit his station and give up the emolument. At the outset he either believes or disbelieves the doctrines. If he believes them, he has cogent motives for abstaining from all examination of their validity; at least from any fair and candid examination of the objections brought against them. The indolence of mind engendered by the perfect coincidence of his opinions and his interest disposes him to shun an intellectual effort, which could not have a happier result than the conclusion in which he is already at his ease; and the apprehension of the bare possibility of a different result operates equally to deter him from the enterprize. Every consideration presented by the circumstances in which he is placed suggests, that his exertions should be restricted to an inquiry after more striking and ingenious arguments in support of the opinions which he is at present fortunate enough to hold.

If on the other hand he does not believe the

doctrines which he has undertaken to profess and expound, he will have equally strong reasons to keep him from a full and impartial inquiry into their truth. To escape the degradation of inculcating on others doctrines which he disbelieves himself, he will apply all his attention to the evidence in their favour: all his diligence, his talent, his ingenuity, will be exerted to magnify the arguments that he wishes to find conclusive; all his care will be employed to keep his mind from the operation of antagonist considerations.

A man in either of the situations described, can hardly be expected to be possessed with a wish to arrive at the truth, whatever it may be. It is the natural tendency of his position to destroy this wish in the most candid and impartial mind, and to substitute in its place the desire to attain or strengthen a conviction of the prescribed doctrines. The consequences of arriving at results inconsistent with them are too fearful for him to contemplate, and he will therefore venture on no course of which he

does not see a probable termination in their favour.

If there is any regularity in the motives which operate on the human mind, we may safely pronounce that this will be found the tendency of such institutions. There may be other reasons why they should be supported; they may be fraught in other ways with advantages so ample and decided as to overbalance the evil now ascribed to them; they may be essential to the preservation of religion, of the state, of morals, of decorum, of civilization: into these imputed benefits we do not inquire; we regard the institutions singly in the point of view relating to our subject; and it cannot be denied, that how great soever may be their other advantages, they have this particular tendency to beget a state of mind and a course of conduct, different from those which the tenor of the preceding part of this treatise has shown to be required by the interests of mankind and the obligations of morality. Truth itself demands

that this tendency should be fully stated and understood.

The annexation of any advantage whatever, whether by positive institution or by the habits of the community, to any particular opinions, has the same effects as that of pecuniary emolument. Eligibility to honours, the esteem of friends, reputation in society, and other benefits accruing from the profession of certain opinions, operate in the same way as inducements to negligent and impartial treatment of evidence. The case we have taken may be considered as the representative of all, and relieves us from the necessity of entering on further detail.

But these institutions have also a further effect, besides their direct influence over the minds of the parties as already described. Men seeing the advantages of holding these doctrines, and some of them feeling perhaps the evils of disbelieving them, are particularly careful to instil them into the minds

of their children, that their descendants may fully possess the firm conviction which removes so many obstacles from the career of fame and fortune.

This remark brings us to the consideration of a practice described by Locke under the appellation of principling the minds of children; the practice of instilling certain doctrines into their minds without teaching them the duty of examination; and even of connecting the idea of guilt with any doubt or departure from the opinions prescribed.

"There is," says Locke, "I know, a great fault among all sorts of people of principling their children and scholars; which at last, when looked into, amounts to no more, but making them imbibe their teacher's notions and tenets by an implicit faith, and firmly to adhere to them whether true or false. What colours may be given to this, or of what use it may be when practised upon the vulgar destined to labour, and given up to the service of their bellies, I will not here inquire. But as to

the ingenuous part of mankind, whose condition allows them leisure, and letters, and inquiry after truth, I can see no other right way of principling them, but to take heed, as much as may be, that in their tender years, ideas, that have no natural cohesion, come not to be united in their heads, and that this rule be often inculcated to them to be their guide in the whole course of their lives and studies, *viz.* that they never suffer any ideas to be joined in their understandings, in any other or stronger combination than what their own nature and correspondence give them; and that they often examine those that they find linked together in their minds; whether this association of ideas be from the visible agreement that is in the ideas themselves, or from the habitual and prevailing custom of the mind joining them thus together in thinking*."

In treating of this topic we shall also confine ourselves to the point of view immediately re-

* Conduct of the Understanding, § 41.

lating to our subject. Our purpose is to show the effects of the institutions and practices of society on the desire after truth and the mode of investigation; and no one will surely deny, that if the minds of children are strongly imbued with particular doctrines, if they are taught to believe that to doubt such doctrines is a crime, if they are commanded to receive them as positive and incontrovertible truths of which no question is to be entertained, if they grow up therefore unaccustomed to examination, the effect must be a state of mind as remote as possible from a fearless and ardent desire after truth, and a conduct in regard to investigation in which we shall vainly look for diligence and impartiality.

It may be urged indeed, that instilling doctrines into the minds of children is unavoidable; that they must necessarily learn many things the reasons of which they cannot understand, and take many things on trust because incapable of appreciating the evidence on which they rest. All this is readily allowed.

Many things must be taught them for which they can for a while have no other authority than the teacher; but if we really wish to produce in them a love of truth, a desire after knowledge, a spirit of candour, and that integrity of mind which will best preserve them from error, nothing must be taught them as a doctrine which it is their duty to believe, and of which it is a crime to doubt. All the instruction given them should be accompanied with inducements to exert their own faculties, to seek for reasons of what is asserted. They should be rescued from the mere passive adoption of what is proposed to them by authority, and trained to the habit of drawing their own inferences. All the reverence which they are commonly educated to feel for particular doctrines and authorities, they should be taught to feel for truth itself, and for honesty of investigation. It is under such a discipline that we should expect to see minds of integrity arise which would be blessings to the world.

One other practice in society remains to be

noticed, which must necessarily have an evil effect on the spirit and conduct of investigation; namely, the practice of persecution for opinions, that eternal blot on the reputation of humanity. It might be expected, perhaps, that as rewards encourage a partial attention to evidence in favour of those doctrines for the profession of which they are bestowed, the opposite treatment, persecution, would have the effect of inducing mankind to shun the persecuted doctrines and the arguments in their favour. And it no doubt happens, that the lovers of peace and quietness, who do not greatly concern themselves about any opinions so long as their ordinary course of life is suffered to run smoothly, may be deterred by a fear of painful consequences from any attention to doctrines which can bring only danger and discredit on their votaries. But in general the effect is the reverse, and especially on the party who actually suffers in his own person. His passions are roused against his oppressors, and instead of seeking for what is true, his whole

soul is bent on detecting the errors of his antagonists, and providing himself with every possible argument on his own side. He grasps not at truth, but at the means, whatever they may be, of self defence, and at the power of annoyance. Thus punishment in fact like rewards, although in a different way, brings the mind into a state far from being favourable to impartiality of investigation.

This is true even of that minor species of persecution, which consists in debarring dissentients from certain rights and privileges, or exacting declarations of faith. Many find themselves from rank, or birth, or station, in this vexatious position in society; and the irritation which it produces, the sense of injustice which they feel, has a tendency to sharpen their perspicacity to all the arguments of their own party, and to the weak points of the system which degrades itself by annoying them with needless disabilities and injurious exactions.

In whatever light persecution is considered, it shows itself a compound of folly and wicked-

ness. Besides the direct misery which it inflicts on society, we see from this representation that it has the effect of putting the mind into an unfavourable state for the perception of truth; and even defeats its own object, inasmuch as it strengthens the conviction of those opinions against which it is directed.

CHAPTER VII.

ON THE SPIRIT IN WHICH WE OUGHT TO COMMUNICATE AND RECEIVE THE RESULTS OF INQUIRY.

We have now considered the importance of searching for truth, the states of mind favourable and unfavourable to the success of inquiry, the prejudices opposed to it, on whom the duty of investigation devolves, what is the conduct incumbent on them during the process, and lastly the influence of the institutions and practices of society on this momentous pursuit.

The subject however is not yet exhausted. There are other duties involved in the pursuit of truth, which are equally worth our attention.

When we have exerted our utmost vigour of intellect, examined all sides of a question with impartiality, and attained a satisfactory conclusion clearly deduced from undeniable premises; in a word, when we have fully discharged the duties incumbent on us during the process of inquiry, there are still important offices which we may be called on to perform: we may be required to communicate the results of our investigation to others, and we may also have to receive from others the results of investigations in which they have been engaged. It is worth while to examine what is the proper spirit, in which to do both the one and the other.

One who has taken due pains to master a subject, who feels persuaded that he can present it in a new light, and who is not destitute of the obvious qualifications for the task, is under an obligation to communicate his views to his fellow-creatures. Not to do it, if the matter were of importance, would be reprehensible selfishness; it could be only to avoid

trouble, or shrink from responsibility, or maintain a solitary superiority over the rest of the world.

It is true, he may be deceived in his estimate of his own achievements; an exaggerated opinion of the value of what we ourselves accomplish, is perhaps inseparable from human nature; but if he has taken due pains and is actuated by a proper spirit, his conduct is entitled to approbation. By communicating the result of his inquiries, he may possibly too be instrumental in promulgating error; his views may wander widely from the truth, and he may lead many astray by the same illusive reasoning which has deceived his own mind. These are things, which according to the constitution of man and the present state of society cannot be avoided. Even in this case, nevertheless, he is doing good. His errors are such as have, with more or less distinctness, presented themselves to other minds as truths. To bring them openly forward, with the premises from which they are deduced and the train of rea-

soning by which they have established themselves as truths in his own understanding, is giving them the best chance of being refuted, and refuted in so full and luminous a manner, that their real character will be conspicuous to every future inquirer.

Had they been kept back, had they and the arguments in their support not been openly produced, they would have continued to haunt other minds, to delude other understandings, and create those casual and vague disputes, which are perpetually arising when a question has not been thoroughly canvassed.

While therefore he deserves the execration of mankind who knowingly promulgates falsehood, and of course has the purpose of deceiving; an opposite sentiment is due to the man, who, with upright intentions and after adequate examination, is unfortunate enough to be the unconscious instrument of disseminating error. To such a misfortune all men are liable, and this liability imposes on them the duty of communicating their opinions in a spirit of can-

dour and liberality. In danger, with the utmost circumspection, of falling into mistakes, it becomes them to evince an entire openness to correction, a willingness to listen to opposite suggestions, a readiness to review their most cautious conclusions, and a perpetual sense of their own fallibility. They should endeavour too, to separate the consideration of their own reputation from the cause of truth.

A man who communicates his views to the world, is, or ought to be, an inquirer after truth, and it is of little importance to him in that character, when a mistake has been committed and detected, which part of the process is his. That an error has been cleared up, that a truth has been discovered, should occasion too much pleasure to his mind to permit it to dwell long on the personal consideration of the agency through which it has been accomplished.

This openness to conviction nevertheless is perfectly consistent with a severe examination of all opposite allegations, and a free exposure of antagonist sophistry. Let him reply, retort,

return the scrutiny of his opponents, and especially expose any unfairness or malevolence which may characterize their opposition; but let him at the same time cheerfully acknowledge any error of which he may be convicted: let him pay the most scrutinizing attention to hostile criticism, not to find out merely how to reply to it, but how far it is fairly applicable.

Were we to imagine a being, who while he was free from the moral weaknesses of human nature, was still subject to its intellectual fallibility; the following is the kind of language we should expect to hear from him, on his giving to the public the result of any investigations in which he had been employed.

"In communicating these speculations to the world, I do it under a full sense of my liability to error, and of the chances that I have fallen into many mistakes, notwithstanding the patient thought which I have bestowed on the subject, and the various means I have employed to ensure correctness. Future philosophers, I am aware, will see in a much clearer light the

truths here developed, and will present them in a much more lucid and convincing order; divested too of the inaccuracies which surround them in my pages. These inaccuracies I have not the slightest wish to see spared. So far from desiring any one to forbear pointing out errors in my reasoning, I shall feel greatly indebted to him for the correction of a fallacy. One of the ends which I seek to accomplish by laying these speculations before the public, is to avail myself of the instruction arising out of the different views which different minds take of the same subject. And not only will any one confer a real benefit on me by dissipating my errors, but he will prevent my speculations from spreading erroneous opinions among mankind, and counteracting any advantages which might result from such of them as are well-founded. Nothing can be more abhorrent to the feelings of a man of upright mind, than that errors should be perpetuated merely to preserve his reputation for correctness, and save his vanity from mortification: nothing there-

fore ought to be received with more gratitude than an indication where those errors lie. It at once enlightens his own mind and saves him from being the instrument of injury to his fellow-creatures, when he thought of doing them a service.

"On this point I have only one request to make, that the existence of an error may be shown, not merely asserted; and that any fallacy in reasoning may be directly pointed out, rather than met by counter-arguments drawn from different premises. When any train of reasoning is fairly laid down before us, if it involves an error the fallacy may be detected and exposed. For any such detection then I shall be grateful. I am willing to review, to discuss, to analyze again any principle which I have maintained, and should rejoice to emancipate myself from any illusion.

"Should any one intermix his exposure of my errors with opprobrious language, it will be to his own detriment and disgrace; but it shall not prevent me from taking advantage of his

perspicacity to clear my understanding from inaccurate conceptions. While I shall do my best to seize the truth of his arguments, I shall also in the same spirit of fairness endeavour to appreciate and exhibit in its true colours, that unfortunate junction of malignacy of disposition with intellectual power of which he has afforded the melancholy spectacle.

"If on the other hand the objections brought against any of my doctrines appear to me, after the fullest and fairest examination, to be unsound, I shall not hesitate on my part to expose their character. To this task I shall devote the utmost acuteness of which I am master, and undertake as close and severe an examination of their pretensions as I should desire might be bestowed on my own.

"In a word, as truth is my object, I shall endeavour to find it by every means in my power, and shall freely join in the exposure of error, whether found in preceding writings, in my own productions, or in those of my antagonists."

So much for the spirit with which a man should communicate his views to the public; and from this representation may also be gathered the spirit in which he ought to receive the communications of others.

In the first place, it follows from the preceding remarks, that some degree of good will and approbation is due to every communication, which is made after the requisite preparation and with upright intentions.

This sentiment of kindness, nevertheless, is not to prevent a strict appreciation of merits and defects. A man who presents his views to the world is attempting to influence the minds of myriads of human beings, and it becomes of importance that these views should be put to the severest test which human ingenuity can devise. It is for the benefit of all that truth should prevail; and that the merits and defects, the strength and the weakness of a work, whatever they really are, should be rendered distinctly manifest. As no upright man would

wish error to exist for his own private advantage in opposition to the general good, so he ought not to refrain from the exposure of it in the writings of others, merely from a principle of humanity. If the error is important, the duty of the occasion is to point it out. True benevolence here consists in counteracting a general evil, although at the expense of impairing individual happiness.

The whole duty on the subject indeed, may be comprised in one word—justice. This is what every critic ought to give, and more than this a man ought not to wish to receive. The general presumption in favour of an author's intentions, in the absence of all evidence to the contrary, should obtain for him the courtesy due to a laudable attempt, and secure him from all imputations of bad motives, but not shield his speculations from scrutiny. There is nothing incompatible between thorough esteem for the moral and even intellectual qualities of his mind, and a full conviction of the

inaccuracy of his views and the unsoundness of his arguments; — nothing inconsistent between respect for the one and a free exposure of the other.

It will frequently happen, that not only errors will be committed, which it will be requisite to expose, but various mental qualities will be exhibited in the communication of opinions; — vanity, conceit, affectation, prejudice, presumption, and other offensive and ludicrous characteristics. There is no good reason why these should not be set in their true light. That every thing should appear to every one what it really is, must ever be the interest of the majority of mankind. At the same time it deserves to be remembered, that some errors carry along with them their own refutation, and some weaknesses furnish their own exposure, so that neglect may be a not less efficacious although a less painful remedy than censure.

The same justice which requires these errors and weaknesses to be shown in their true cha-

racter, imposes on us the pleasanter duty of pointing out excellences whenever they occur. To commend just reasoning, felicitous illustration, candour, fairness, modesty, and magnanimity is equally demanded of us, as to expose and condemn qualities of an opposite nature. Men do not always feel that it is not sufficient to pass over these meritorious qualities in silence,—to intermit their vituperation when they meet with them: something more than this is required by the general good; just commendation is as useful as just censure, and to withhold it is a fraud at once on the individual and the public.

This is the more necessary to be insisted on, as we frequently meet with men, rigid in the application of principles, professing to bring every thing to the standard of utility, and severe in their condemnation of all deviations from this rule, who appear to think they have done every thing required of them, when they have performed the task of reprehension. With a strong sense of vice and error, they have no

ardour for excellence; prone to censure, they are without inclination to praise; alive to deformity, they are insensible to beauty and elegance. If they attempt to commend, it seems an effort against their nature, resulting in imperfect accents of abortive eulogy.

Conduct of this kind is reprehensible on their own principles. It is equally important that excellences should be duly appreciated, as that defects should be placed in a true light. In this as in other cases, we can have no better guide than the law of truth. Let every thing be regarded and represented exactly as it is: let vices be seen as vices, and let virtues appear in their true character. If men see clearly they can scarcely fail to feel correctly.

We contend for the commendation of merit, but it requires no exaggerated praise. The simplest statement of what has been accomplished is all to which it needs to aspire, although it is not all which a generous spirit is impatient to bestow. Nobleness of mind springs forward with ardour to meet every in-

dication of a similar nature wherever it appears. There is no surer mark of the absence of the highest moral and intellectual qualities, than a cold reception of excellence.

Further, it will not escape the candid mind, that being ourselves liable to mistake, we may err both in censure and applause. Were we infallible, we might with equal fearlessness commit ourselves to a description of both the merits and the defects of any production offered to our scrutiny; but prone to err, we should recollect that errors of censure are more certainly destructive of happiness than errors of praise, and we therefore ought to be especially vigilant in investigating the grounds of our decision before we pronounce an unfavourable sentence.

Were these principles acted upon, every man would have the proper inducement to keep back or to bring forward the fruits of his researches.

Knowing that if he produced what was immature, ridiculous, unsound, or fallacious, he

must undergo the ordeal of ridicule and refutation, he would be cautious of obtruding what would do him no honour: confident on the other hand, that his merits would be fairly appreciated, he would feel all that alertness in his labours which naturally arises from the conviction that we are making advances to a determinate point: and lastly, assured that the decision of his judges would be right, he would acquiesce in it, even if unfavourable, without irritation and without complaint, and with the satisfaction at least, that he had made some progress in a knowledge of his own capabilities.

ESSAY

ON THE

PROGRESS OF KNOWLEDGE.

ESSAY

ON THE

PROGRESS OF KNOWLEDGE.

ESSAY II.

ON

THE PROGRESS OF KNOWLEDGE.

PART I.

A. I am glad that we have disengaged ourselves from the company, as I am not altogether satisfied with the opinions you have been expressing on the character and condition of mankind. They are too disheartening.

N. Are they true? That is the only inquiry worthy of a rational being.

A. When I say they are too disheartening, I mean that they go beyond the truth in the low estimate which they exhibit of human nature. In the present day, I should hardly contest any opinions on any other ground.

N. After all, what have I said? I have said, and I repeat, that when we look back into the history of the human race we can scarcely help feeling ashamed that we belong to it. Man is an animal in a very slight degree rational by nature. It seems to require ages upon ages to bring the race to any thing like a state of reason—a state where prejudice and passion are subordinate to the understanding, where man controls the blind impulse of the present by a view of the future, and distinctly perceives his relative position in the universe. It is certain that mankind have hitherto never reached such a state. Let any one look around him, and what does he observe? A few minds perhaps capable of raising themselves into the pure atmosphere of truth, of emancipating themselves from the domination of mere instinct, of expatiating through the moral and material world with full liberty of intellect, and of appreciating the exact relation in which they stand to the existences around them; but the majority—nine hundred and ninety-nine in a

thousand—the slaves of prejudice and the dupes of passion, inflicting misery upon themselves and others from gross ignorance of the real tendencies of action and the rational object of existence; shrinking from truth as from a spectre; frightened by imaginary terrors; incapable of pursuing more than one step of argument, yet pertinacious in their own infallibility; humbling themselves in the dust as unworthy to approach the God whom they tremble to think of, while they confess his unbounded benevolence, yet assuming their actions to be of such immense importance to him as to require the discipline of eternity at his hands. The meanness of men's reasoning powers in general is almost incredible. Locke, if I mistake not, terms a man who can advance two steps in reasoning a man of two syllogisms. There are few such to be found. The majority of mankind are men of one syllogism, or of less. The faculty of taking two steps in reasoning without assistance—leading strings—is rare: that of

taking three belongs to one in an age. It stamps a man as the wonder of his day.]

A. Yet with these mean understandings, these limited faculties, how much has the human race accomplished? You must admit, that men in the present day are superior, wonderfully superior, in knowledge and wisdom to their progenitors three thousand or even three hundred years ago; that they have discarded some methods of rendering themselves miserable, and opened a few fresh springs of happiness. In a word, there has been an advance in the discrimination of good and evil. You will not contend that men are incapable of progressive improvement, chained for ever like the brutes to the circle of individual attainment, doomed generation after generation to commence at one point and to tread the same round. No! human improvement, thank God, admits of successive advances; each generation starts from the ground at which the last had expended its strength in arriving; and I will

venture to say, that this single circumstance is sufficient to carry the race to a degree of knowledge which it is impossible for us to conceive. Oh! that I could live to see the results of another century of progression.

N. The principle of the progressive improvement of mankind, and the consequences resulting from it, I acknowledge as well as yourself. It was implied indeed in my assertion, that it required ages upon ages to bring the race to any thing like a state of rationality; an assertion, which, while it admits the tendency to improvement, certainly encourages no very sanguine expectations of the rapidity of the progress. In our anticipations on this point we differ. When I look back on the past, or around me on the present, I cannot help feeling convinced, that if men are to advance, as I think they inevitably must, it will be by a very slow march. There are a thousand obstacles in the way. It is but a poor eulogy on human capabilities, that mankind have been four or five thousand years in attaining to their present

partial and imperfect civilization, which, extolled as it generally has been, is scarcely entitled to the appellation of semi-barbarism. If we are to be guided by experience, if we are to expect hereafter only what we have found in the past, our anticipations of the rapidity of future improvement will not be very extravagant.

A. Consider the wars and disorders which have heretofore constantly checked the career of civilization. But for the madness of ambition, how far it would have already advanced!

N. These wars and disorders were the necessary consequences of those narrow faculties, that incapacity of reasoning, that blindness to their real interests, which I charge on the human race. To say in defence of human nature, that it would have improved faster had not these things happened, is only to affirm, that if it had been endowed with superior sense, it would not have exhibited so much folly.

A. There is one thing, however, which you

must allow to be much in favour of those anticipations which look for a more rapid advance in future than has hitherto been experienced—the invention of printing.

N. That indeed is the noblest acquisition of science: it is the impregnable fortress of civilization; no political changes, no physical vicissitudes, no mutation short of the complete extinction of mankind, can henceforth ever restore the empire of the world to ignorance. But admitting all the benefits of this invention, it is not in the nature of the human mind to advance with rapidity. The onward strides of improvement may be sure, but they will be slow. Genius may burst away from the steady march of the race, and penetrate into regions which it will be the work of future generations completely to explore; but all its energy will not suffice to drag on the main body faster than the regular pace to which the nature of its powers inevitably confine it.

A. You appear to forget, that as by the press the cultivation of knowledge extends

itself over greater numbers, a greater portion of talent will be brought out; prejudices will give way in a shorter time, and improvements be adopted with less reluctance. Consider how rapid has been the progress of science within the last fifty years, compared with an equal term during the middle ages.

N. Of physical science it is true. It labours under a part only of those obstructions which impede the science of human nature. Yet even here we may mark several of those impediments which doom the species to a tardy progression; the dulness and inertness of the faculties to discover truth, the interests arrayed against its reception, the difficulty of sundering the established bonds of mental association. Besides, there is a puny sort of self-love in every department of knowledge, which desires the prevalence and stability of opinions because they are *its* opinions. It cannot find in its heart to fancy itself at all in error. Instead of wishing for the progress and spread of truth, however subversive of established doc-

trines, and that mankind should be continually detecting their errors and adding to their acquirements, instead of exulting at the prospect which the future presents of receding darkness and advancing light, this contemptible selfishness would have the world to stand still for ever at the point which itself has attained, and poises its own gratification against the comprehensive interests of mankind, its own shallow pretensions against the growing science of the age, and the intellect of myriads of unborn generations. It would bind down all the great spirits which are yet to advance the happiness and elevate the dignity of man to its own blind dogmas and narrow sphere of vision, and permit no other intellectual movement in the world than an approximation to those opinions which itself has chanced to adopt.

A. You are severe.

N. Severe! Would it not exhaust the patience of the meekest philosopher—a designation to which I have no pretensions—to see

men who have possessed themselves of the established quantum of information, constantly parading it as the *ne plus ultra* of knowledge, and stifling or attempting to stifle every symptom of improvement, lest their own personal consequence should be scratched?

A. I am perfectly aware of the extensive prevalence of the feelings you describe, which joined to the disinclination, perhaps disability, that every man has to enter into trains of ideas totally at variance with his habitual modes of thinking, protract the reign of error even where interest is not engaged in its support. The conduct of the medical men in relation to Harvey's discovery is a notorious instance in point. But these obstacles give way.

N. True. Men die off; and they are succeeded by others, whose minds are imbued with truer principles, and who do not feel their reputation pledged against improvement. This, however, is a slow process. By your own showing, a prejudice exposed as false can pe-

rish only with the generation to which it adheres. A rapid advance truly, when every step of improvement requires at least an age!

A. We have instances, nevertheless, in which discoveries have met with a pretty general reception in their own times. Those of modern chemistry for instance.

N. Yet Priestley could not part with the doctrine of phlogiston. As he was a man who held his opinions with less than common pertinacity, an inquirer open to conviction to the day of his death—not one of those who early in life packet up their miserable stock of knowledge and label it complete—his is a striking instance how tenaciously a theory once received adheres to the understanding. I grant, however, that physical science advances more rapidly, and disseminates its improvements with more ease, than moral and political knowledge. It would seem, that just in proportion as knowledge is unimportant it meets with a readier reception.

A. Do you really intend to insinuate that

chemistry, and the other physical sciences, are unimportant? Call to mind the power which they have given to man over nature—how well they have answered to Lord Bacon's description of the rational end of knowledge.

N. I do not call these pursuits unimportant, except comparatively; but I maintain that they are incalculably inferior in their effects upon human happiness to those sciences which explore the nature of man and the tendencies of action, and which in the present day, notwithstanding the circumstances which force them in some degree on general reflection, are disgracefully neglected.

A. Not all. The science of Political Economy has surely received its due share of attention. Some of the first intellects of modern times have fixed their grasp upon it.

N. True. This is an exception, a glorious exception; and if any thing could render me more sanguine in my anticipations of political melioration, it would be the progress of this science, the irresistible manner in which it has

insinuated itself into our councils and moulded our policy. Twenty or thirty years ago the doctrines of Adam Smith were apparently a dead letter; his book was considered by that sapient race, the practical men, as full of Utopian dreams. Pitt did not fully comprehend it, and Fox declared it past understanding*. A first-rate statesman in the present day would be scouted for equal ignorance. The prevalence of this science will do good. Its severe logic, its rigorous requisitions to keep in view the meaning of terms, the beautiful dependence of its long series of propositions, will accustom men to think with more accuracy and precision, while they render it even a delightful exercise for a masculine understanding. It is a lever which will move the world.

* Mr. Butler in his Reminiscences tells us, that Mr. Fox confessed he had never read the Wealth of Nations, adding, "there is something in all these subjects which passes my comprehension; something so wide, that I could never embrace them myself, or find any one who did."—Vol. i, p. 187.

A. We have here then an instance in which a science, and that not a physical science, has advanced with considerable rapidity.

N. Pardon me. Political Economy is itself a proof that the dissemination of new truths is restricted by the nature of the human mind to what I may venture to term a very moderate rate. It was necessary that the contemporaries of Adam Smith should be succeeded by another generation before his doctrines could prevail.

A. What will you say, however, to the improvements of Malthus, Say, Ricardo, and others. These have been generally, if not universally, admitted by their contemporaries.

N. Where is your proof? Not to enter into the question, whether the writings of these authors contain any valuable discoveries, I will venture to assert, that the number of people, who fully understand the true nature of any improvements which have been introduced into the science since the days of Adam Smith, scarcely amounts to a few hundreds. No! we

must all die before these things can be generally understood. To comprehend them belongs not to our age.

A. It is my turn to ask for proof.

N. I refer you to the Reviews. How few of the Reviewers of Mr. Malthus, M. Say, or Mr. Ricardo have ventured to grapple with their doctrines. To enter into reasonings of this kind is a tasking of the intellect to which few writers can submit, and which would scarcely promote the popularity of a periodical work. I refer you to the House of Commons. Of the number of those who are nightly employed in the discussion of economical topics, how many are there fully in possession of even the acknowledged principles of the subject?

A. Neither the Reviews, nor the House of Commons, can be reasonably expected to be in the very van of a difficult science, although doubtless splendid exceptions might be named. But to return to your assertion respecting the slow advance of the science of Man, I am disposed to think it more rapid than you are willing to

allow, and that the contrary opinion on your part arises from the few changes which have appeared in our civil and political institutions. Now it is very possible that knowledge on a particular subject may have been making a great progress for years, and yet not have manifested itself in the modification of existing institutions. Nay, this seems absolutely necessary: for, before any effects can appear in practice, it is requisite, in the first place, that the discoveries should have been made; and, secondly, that they should have been familiarized by dissemination. Hence it is not fair to measure the progress of a science at any given period by its practical results.

N. I concede some weight to your remarks. But what examples would you select of improvements in moral and political science apart from practice?

A. After Political Economy, which we have already considered, I should adduce Legislation, Moral and Intellectual Philosophy generally, and the Philosophy of Physical Inquiry

in particular, and also the Theory of Language.

N. I see whom you are aiming at. You doubtless have in your eye Bentham, Dr. Thomas Brown, Horne Tooke, and a few others.

A. You might have guessed more widely of the truth. I hesitate not to express my conviction, that these writers have made important advances in their several pursuits. I know the reluctance with which their claims are admitted, but I suspect that few have taken the trouble to understand their works.

N. So! You are coming round I perceive to my opinion; for you must acknowledge, that if few have taken the trouble to understand writers of this class and character, the rate at which their discoveries are propagated must be very tardy. Believe me, my dear Sir, these men belong to the next age. The truths, which they have promulgated, must be familiarized in elementary treatises, taught in the schools, wrought into our lighter literature,

and instilled into the minds of another generation before they can be generally received. It is a common error to consider the achievements of a few great minds as indicative of the state of civilization to which the community at large has attained. Men of genius leave their contemporaries a century behind. There is an eloquent passage in a writer of some celebrity so much to the point, that I must beg to quote it in illustration of my views. "We cannot help remarking," says he, "what a deception we suffer to pass on us from history. It celebrates some period in a nation's career as pre-eminently illustrious for magnanimity, lofty enterprize, literature, and original genius. There was perhaps a learned and vigorous monarch, and there were Cecils and Walsinghams, and Shakespeares and Spensers, and Sidneys and Raleighs, with many other powerful thinkers and actors, to render it the proudest age of our national glory. And we thoughtlessly admit on our imagination this splendid exhibition as

representing, in some indistinct manner, the collective state of the people in that age. The ethereal summits of a tract of the moral world are conspicuous and fair in the lustre of heaven, and we take no thought of the immensely greater proportion of it which is sunk in gloom and covered with fogs. The general mass of the population, whose physical vigour, indeed, and courage, and fidelity to the interests of the country, were of such admirable avail to the purposes, and under the direction of the mighty spirits that wielded their rough agency; this great mass was sunk in such mental barbarism, as to be placed at about the same distance from their illustrious intellectual chiefs, as the hordes of Scythia from the most elevated minds of Athens*."

A. A noble passage, eloquent in language and felicitous in illustration: but you surely do not regard it as applicable to modern times?

* Essay on Popular Ignorance, by John Foster, p. 71.

N. I look upon it as a pretty faithful picture of the state of things in the present day. He, who not content with imposing reports and statistical results, comes into actual contact with the real body of the people, will find an immeasurable difference between the average of their intelligence and the luminous and comprehensive views which fill the eye of a Bentham or a Brown, or any other man of genius whose name may be employed to mark the farthest point of intellectual progression.

ON

THE PROGRESS OF KNOWLEDGE.

PART II.

N. It appears to me, that in our last conversation on the progressive improvement of mankind, we differed only in regard to its rapidity, you contending for a much quicker progress than I am disposed to anticipate. The difference between us, however, scarcely affects any of the important consequences flowing from the general principle.

A. Your arguments, although forcibly urged, by no means shook the previous conviction of my mind; but what are the consequences to which you particularly allude?

N. The most cursory glance at the subject

is sufficient to suggest a thousand valuable inferences, some of them widely at variance with prevalent opinions. For instance, if all kinds of knowledge necessarily improve, it is vain to look for the soundest principles, the deepest insight into nature, in our older writers.

A. That is a conclusion which is certainly little accordant with the theories of the day. Even I, sanguine as I am of the future, should hesitate to accede to it.

N. The ground of this prepossession in favour of old writers is evidently a false analogy, which Lord Bacon has well exposed. In every subject which admits of an accession of knowledge, the best writers must be in time superseded. To a later age they must often appear tedious, wasting their powers on trifles, attempting formally to establish what is obviously absurd or what no one disputes, or tasking their strength in the prolix exposure of fallacies, the true character of which may now be shown in a few sentences. Such works after a

certain period are consulted only on account of their reputation, for their style, or for the pleasure of tracking the steps of a great mind. The works of Bacon and Locke are already becoming instances in point. They are more talked of than read; and if you will pardon a homely expression, oftener dipped into than waded through.

A. We have works, nevertheless, and those not works of art, but what in contra-distinction may be called works of knowledge, which will not be readily superseded.

N. It would be difficult to name them. I will not deny, however, the possibility of a doctrine being so concisely and clearly established, that the demonstration may never be displaced by a better. Even in such cases, the doctrine in process of time appears so intuitive as not to require proof.

A. It seems to be an unavoidable inference from your remarks, that the study of old authors is a waste of labour.

Much of it is an exhaustion of the strength to no purpose. This obsolete learning is well enough for minds of a secondary cast, but it only serves to hamper the man of original genius. It is unwise in such a one to enter very minutely into the history of the science to which he devotes himself,—more especially at the outset. Let him perfectly master the present state of the science, and he will be prepared to push it farther while the vigour of his intellect remains unbroken; but if he previously attempt to embrace all that has been written on the subject, to make himself acquainted with all its exploded theories and obsolete doctrines, his mind will probably be too much entangled in their intricacies to make any original efforts; too wearied with tracing past achievements to carry the science to a farther degree of excellence. When a man has to take a leap he is materially assisted by stepping backward a few paces, and giving his body an impulse by a short run to the starting

place; but if his precursory range is too extensive, he exhausts his forces before he comes to the principal effort.

A. The general voice is against your doctrine. Old authors are universally considered as treasures of deep thought, mines of wisdom, from which the young aspirant after distinction is recommended to extract the ore, which he is to beat out and embellish for the public use. I think you underrate them.

N. Do not mistake me. I reverence as much as any man the great intellects which have been employed in raising the structure of science. It is no disparagement to the illustrious men of past times, that their errors are pointed out, and that shorter and easier methods are found of accomplishing that which it required all their efforts to effect. With intellects far greater perhaps than any subsequent labourers in the same cause, they may be surpassed in extent and accuracy of knowledge at a later period by men of the most limited capacity. Such is the necessary condition of human

improvement. All that an individual can effect is comparatively trivial. His powers of original inference are bounded to a few steps. The works of one must be elevated on those of another. Meanwhile beauty of style, elegance of illustration, perspicuity of arrangement, and ingenuity of inference,—all that constitutes a book a work of art,—may be imperishable.

A. Your view of the subject seems to militate against all claims to originality. If one man is to build on the discoveries of another, his best works can only be like stones in the edifice,—while it is surely the ambition of every man of genius to erect a structure of his own.

N. This notion, that a man should produce something exclusively his own, unconnected with any thing previously accomplished, in order to entitle him to the praise of originality, has given rise to a good deal of vain contention about the claims of individuals to particular discoveries and inventions. A casual ex-

pression, a barren assertion, an imperfect and unsteady approximation to an important truth, has been singled out to invalidate the just pretensions of the man of original genius, who has planted a firm foot on ground of which it is possible indeed that a glimpse had been previously caught, but which had never been actually reached; and who has opened to our delighted minds a vista of consequences which seems more like a creation than a discovery. Thus the originality of Newton in his doctrine of Gravitation has been disputed on the ground of some approaches to this principle by Hook; that of Hume, in his views of the relation of Cause and Effect, on the strength of expressions in sundry writers; that of Malthus, in his principles of Population, on account of some passages in Wallace, Stuart, and Smith; and that of Dalton, in his chemical theory of Definite Proportions, in consequence of an imperfect anticipation of it by Higgins. The truth is, that the originality demanded by such critics is an originality which cannot exist; it is

purely chimerical, and the ambition of attaining it can lead only to extravagant paradoxes and baseless theories. Whoever wishes to be original in the only practicable way, must rise from the improvements of others. A living writer has well characterized this originality in the case of the doctrine of population, when he remarks that Mr. Malthus took an obvious and familiar truth, which till his time had been a barren truism, and showed that it teemed with consequences.

A. I acknowledge that he who can do this may well be content with himself.

N. Yet the critics will quote the familiar truth to prove that the consequences were not original. But this is absurd on any theory but that which requires in every invention or discovery a perfect insulation from preceding achievements, before it is entitled to that praise. The slightest connection with what has been previously accomplished seems in the eyes of these dreamers to divest it of this character. To trace the way in which it was effected, or

the steps of the process, is with them the same thing as destroying its claims to admiration. In contradiction to all this, I will venture to affirm that it is invariably owing to the state of a science at the time when a man takes it up, that he is able to make his peculiar discoveries. Hence those fugitive glimpses, those scattered lights, those casual touches in writings of the same date. The minds of a number of individuals seem to be contemporaneously labouring with obscure intimations of the same truth, till in the most vigorous amongst them it struggles from its obscurity and bursts into day. "The greatest inventor in science," says an eminent philosopher, "was never able to do more than to accelerate the progress of discovery*."

A. But surely your representation of the matter has a tendency to lessen the merit of invention, or at least our admiration of it.

N. On the contrary, it shows us where ad-

* Playfair's Works, vol. ii, p. 52.

miration is due, and what are the grounds on which we should grant it, as well as explodes the flimsy pretences on which it is sometimes professed to be withheld. What is still better, it exhibits the real process of invention and discovery, and proves that they must necessarily go on, however slowly, so long as there is any thing to invent or discover.

A. In this point we perfectly agree. Hence the folly of shutting the mind to further improvement,—of conceiving, as many people are apt to do, that they have mastered the sciences once and for ever.

N. Mastered the sciences! A man in the present day with regard to the sciences is something like Virgil's boatman, *si brachia fortè remisit*, he loses his place—he is in effect carried backward. There is a perpetual necessity for exertion if he would maintain his relative position in the world of intellect; and from this necessity arises much of that hostility to improvement which characterizes the dull and the indolent. Thus what should yield delight

proves a source of mortification; for what in reality can be more exhilarating than the thought, that thousands of minds are constantly at work upon new improvements and discoveries, that every year may bring some correction to our errors and solve some of our difficulties, and that as long as we live, new lights will pour upon our understandings? A right view of the subject would show us, that every man of genius, of enterprise, and of research, is labouring for our gratification, smoothing the path for our steps, and illuminating objects to delight our vision. When the warm glow of youthful feeling has passed away, I know of nothing so worthy to replace it, nothing so well calculated to relieve the insipidity of middle life, as the prospect of continual advances in knowledge, inspiring hopes which are perpetually gratified and perpetually renewed. An adequate view—a deep impression of the progressive character of science is utterly inconsistent with that overweening confidence which

causes a man to place his own opinions as the limit of improvement.

A. If this is preposterous in an individual, it is surely equally so in a body of men. What then shall we say of a set of immutable propositions on any subject whatever?—a series of doctrines laid down as absolute truths never to be altered?

N. I should certainly pronounce it a grand mistake in the science of the human mind. There is not a single subject which exercises the faculties of man that may not be improved, —nay that will not be improved,—by the efforts of successive generations. It would be an unpardonable degree of arrogance in an assemblage of the wisest men that ever lived, supposing that they could be brought together, to circumscribe any subject whatever within the narrow boundaries of their own opinions. It would betray a total misconception of the relations of the human mind to the objects around it. I have contended, that men in the

present day are superior in knowledge to their predecessors,—but on the same grounds those who come after us will be superior to the existing generation. It is highly probable indeed, how mortifying soever the reflection may be to our personal consequence, that we in this age are mere barbarians compared with the race who shall hereafter fill the earth: and surely for us to erect a standard of opinion for beings likely to be so infinitely superior to ourselves is too absurd to need exposure, and can scarcely fail to provoke many a compassionate smile in the future ages of the world.

A. Absurd enough in all conscience. We are too apt, I confess, to consider our own age as enlightened almost to the utmost extent of human capacity. When we reflect upon the wonderful discoveries of modern astronomy, on the brillant operations of chemical analysis, on the new lights darted into the gloom of past ages by geology, on the comprehensive truths of political economy,—when we survey our ships and our commerce, our steam-engines

and our gas-lights and balloons, our canals and piers and bridges,—in the exultation of having taken a giant-stride, we fancy ourselves already arrived at the goal. The truth is, however, that all these considerations are but so many arguments for modesty and diffidence. If the present age has excelled those which have preceded it, this result is owing to circumstances still in full activity, and which will inevitably carry the next generation far beyond us. It is often said that we are presumptuous in thinking ourselves more knowing than our ancestors, but we forget the presumption of arrogating a superiority over our successors.

N. It is curious to speculate on the consequences of this inevitable progression. The multiplication of books, for instance, will give rise to some singular phenomena. What a vast accumulation of literature, should the world continue a thousand or twenty thousand years longer without a geological submersion! What a weight of materials every year is adding to the stock of the historian! In process of time

it will require the whole life of a man to become acquainted with the transactions of former ages, and the longest life will be insufficient to master the literature of a single country.

A. It will be the reign of Retrospective Reviews. A thousand years hence the literature of our own age may possibly furnish half a dozen nibbles to these fishers in the waters of oblivion. The splendour of intellect which envelops us will have dwindled into a mere luminous point, scarcely making its way athwart the intervening space,—a star faintly visible in the night of ages. How mortifying to the personal vanity which makes itself the very sun of a system! But if we indulge in speculations of this nature we shall inevitably draw on ourselves the imputation of being visionary advocates of the perfectibility of man.

N. Such an imputation will scarcely be fixed on me, after what I have said in a former conversation on the slow progress of the human race. That there will be a progress, however, and an incessant one, is so far from being a

visionary speculation, that I scarcely know a proposition which rests on a firmer basis. And the particular speculation on the future phenomena of literature is equally well founded. It is obvious that the art of printing has produced a complete revolution in the world of letters during the few centuries which have elapsed since its invention: the movement will continue—will be accelerated; the causes are still in activity, and acquiring new force. We have merely to represent to ourselves therefore a repetition of what has already happened, only on a larger scale and with a somewhat more rapid career. Our conclusions on this subject must be drawn, not from the history of antiquity, but from that of modern times. Had Greece possessed the art of printing, the story of the human race would have been different beyond all conception from what it is.

A. If it had saved the world only from those ages of disputation in which the human mind seemed to spin round a circle without a single step of advancement, the benefit would have

been invaluable. It is useless, however, to imagine what might have happened, a more interesting inquiry is what will the future bring? Literature, Science, Political Institutions, Religion,—all must pass through various changes, if there is any correctness in the principle of progressive improvement.

N. Literature and science we have already adverted to. A progress in these must be accompanied by progressive changes in our social and political institutions. That they have not arrived at perfection, the slightest glance at the misery around us is all that is requisite to prove. The supposition that they will not be subject to changes would imply, either that while other kinds of knowledge were daily advancing, the science of social happiness was as complete as the nature of the subject allowed, and therefore susceptible of no improvement; or that the happiness of communities admitted of no addition, their misery of no diminution, from the most thorough insight into the various causes which produced them. The history

of every country proves that a knowledge of these causes is one of the most difficult of acquisitions; that on no subject is man more easily deluded, less capable of extensive views, guilty of grosser mistakes, and yet more inveterately pertinacious in thinking himself infallible. Nor is there any subject on which the correction of an apparently small error has teemed with such important benefits to the world.

A. From all which it most indubitably follows, that political knowledge and political institutions are predestined to improvement. What a source of sad anticipation to a multitude of politicians!

N. Already great changes have taken place, as any one will own who is at all conversant with the history of the past. Greater are in embryo. The blind veneration for rank, the feudal feeling, is obviously on the decline, and it is probable that it will be nearly extirpated in the course of ages. The tendency of political change is now evidently to republicanism;

and it is not unlikely that the existing governments of Europe will gradually approximate to the form adopted in the United States of America. That form is at present unsuitable to the feelings and habits of Europeans, which still retain a strong tinge of the spirit of the middle ages. There are certain principles, however, which are making daily advances, and which in proportion as they subvert the ancient spirit of hereditary attachment, will render it unnecessary and substitute a better in its place. Such are the principles—that government is for the benefit of the whole community; that to ensure the attainment of this end, the will of the majority ought to prevail; that to secure the benefits of government, the people must strictly conform to the regulations which they themselves have imposed; and the corollaries flowing from these propositions. Changes of this kind must not be expected too soon. We may alter on a sudden the forms of polity, but we cannot suddenly transform the spirits of men. This is the effect of time, or what is meant by

that phrase, of innumerable successive circumstances, and it cannot be either much accelerated or much retarded. The slow progress of mankind is here more apparent than anywhere.

A. From your opinion respecting the tendency of political change to republicanism I must dissent; in no instance have we seen this form of government productive of greater advantages than the mixed; and I am strongly inclined to question whether any happier expedient can be devised than the hereditary descent of power.

N. I am not anxious at present to discuss the merits of any forms of government. All that I mean to contend for is, that whichever is really the best must in the natural course of improvement establish its claims to preference. Men learn these things slowly, but experience must ultimately force them upon their understandings. The change in men's religious views will also probably be great. As mankind learn to reason more justly, they will see the absur-

dity of many of their tenets. They will discover more and more clearly, that instead of the wise and benevolent Author of the Universe, they have been worshipping an image in their own minds, endowed with similar imperfect faculties and passions to their own, nay even invested with principles of action drawn from human nature in its rudest state. Men's conception of the Deity can never go beyond, although it frequently falls short of their moral opinions. He who has a narrow, confused, and indistinct view of what is really wise and admirable in human qualities, cannot have a clear and comprehensive idea of God. Hence as moral knowledge advances, as mankind come more and more to fix their approbation on actions according to their actual desert, their conception of the Deity will become more refined, more elevated, and more worthy of its object. The proper way to exalt man's veneration of God is to teach him what is really just, benevolent, and magnanimous in his own race. It is melancholy to reflect on the sort of attributes

and actions which are daily ascribed to the Supreme Being.

A. I have frequently been struck with the fact to which you have alluded, that men's conception of the Deity generally falls short of their moral opinions; but I have never been able to account satisfactorily for so remarkable a phenomenon. How is it, that even in the present day theological systems continue to invest the Deity, as you have expressed it, with principles of action drawn from human nature in its rudest state, and long since practically exploded in every civilized country?

N. The awfulness of the subject combines with the interests of men to produce a tardy application of their improved knowledge to their conception of the Author of the Universe. It is as if they entertained an obscure and undefined apprehension that any alteration in their ideas regarding him would not simply be a change in their own minds, but would involve a modification of the nature and happiness of the Supreme Being himself. The veneration

which they feel towards their Creator diffuses itself over their own dogmas. But your question has diverted me from the natural course of my remarks. I was going to observe, that mankind will not only necessarily perceive the absurdity of many of their tenets, but they will especially become sensible of the folly and wickedness of intolerance, that never-dying worm which preys on the vitals of human felicity. I am never so inclined to feel contempt for my own species as when I look into the history of religious persecution. It presents to us a combination of all that is weak with all that is wicked in our nature,—the senseless activity of an idiot destroying his own happiness, with the malignity of a demon blasting that of others.

A. Language is too feeble to express the deep execration which is its just due. But I own I am more struck with the extreme folly, the childish weakness, the incapacity of just reasoning, involved in the slightest act of in-

tolerance, than with any other of its features. In point of mere logic, such an act is absolutely disgraceful to the intellectual character of any one capable of drawing a single inference. Were it not for the sufferings of the victim, it would be altogether ludicrous. The puny, pitiful attempts at intolerance in our own day, are miserably post-dated,—absurd from their pretensions and contemptible from their impotence.

N. With my whole soul I agree with you as to the sentiments which these attempts ought to inspire; but I am of opinion that they are not so ill-timed nor so impotent as you imagine: in other words, I consider that there yet exists a more extensive spirit of intolerance than you are aware of; subdued indeed from its original savageness, but deeply rooted and tenacious. There are also to be found more important cases of intolerance than your language implies. From all that I have myself observed of the spirit of society, I am decid-

edly of opinion, that the sympathies of the majority of the nation are in almost every case against, and not in favour of the victim.

A. I should be pained to believe it.

N. I am convinced you will find it so; and this brings us again to the point before discussed, the over-estimation of the attainments and real civilization of the present age. The spirit of society on this subject may be looked upon as the thermometer of civilization,—at least a high degree of what we include in that term cannot possibly exist where intolerance prevails. The two things are mutually destructive. The same remark may be applied to a still more enormous evil, or one at least that presents itself in greater and more distinct masses,—WAR. The existence of war at all is a tremendous proof that mankind are not civilized. Again then we must conclude that we over-estimate our progress; that we are really but a little way removed from barbarism, in comparison with the possible point at which the race may arrive. And this would be a

most salutary conviction; for while it would add to our alacrity by teaching us how much there was yet to discover, it would abate our presumption in the perfection of our present attainments. If I do not deceive myself, I foresee the time (far distant, alas!) when mankind shall awake to a full sense at once of their actual imperfections and of their capacity for illimitable improvement; when they shall cease to create their own misery, and to lavish their admiration on qualities that thrive on their ruin; "when almost all the great political wonders, the idols of history, stripped one after another of the vain splendour thrown around them, will appear nothing more than the frivolous and often fatal sports of the infancy of the human race*."

* Rapports du Physique et du Moral de l'Homme, par J. G. Cabanis, tome i, p. 340.

ON

THE PROGRESS OF KNOWLEDGE.

PART III.

A. In our previous conversations we have touched on the present state of society, but only in a general way; and we were chiefly occupied with the progress of the human race, and the principles on which such a progress might be looked for. I should like to hear your sentiments on some other features in the intellectual condition of our own times. My friend B here, who differs in his general views from both of us, will assist me in the task of contesting any questionable propositions.

N. The field is wide: we have already endeavoured to estimate the point reached in the

scale of civilization; what other part of the subject have you particularly in view?

A. My views have reference chiefly to the state of moral and political intelligence and feeling. I think, for my own part, that society is in a curious condition in these respects. It seems to be labouring with a thousand incongruous principles and opinions.

N. I perfectly agree with you. When we examine the actual condition of society, we find amazing discrepancies in moral and political sentiment. We find even great contrariety in the same individual. He will be found perhaps, without being aware of it, maintaining two opinions, mutually repugnant and contradictory; one opinion probably the result of instillation by his preceptors; the other his own acquisition from reading or conversation. Now, not being in the habit of deducing a series of inferences, not being able to follow out any doctrine to its consequences, he is insensible to the contrariety existing between them, and perhaps would regard you with

something like horror if you were to attempt to point it out. This is all very well, and cannot be avoided where, without much precision of ideas, there is any thing like a determination of the general intellect to moral and political inquiries; where men's knowledge begins to outstrip their prejudices, and yet is not disentangled from them. The same causes however give rise to other moral phenomena, not quite so free from culpability.

A. To what do you allude?

N. I allude to the concealment of opinions and feelings, to the insincerity, to the conventional simulation which abound in the present day. Every one must be struck with the discordance of tone between the sentiments of our literature, of our public debates, of our formal documents on the other hand, and those heard in private society and exhibited in the common habits of life on the other. The same individual who has been speaking to the popular prejudices of the day in public, will often let

you see by a sneer or a jest, or at all events by the principles which regulate his daily conduct, that he has in reality been playing the actor and duping his audience. Hence our literature does not present us with the actual sentiments entertained. There is nothing like general sincerity in the profession of opinions. The intellect of the age is cowed.

B. A great part of what appears to be insincerity may perhaps be ascribed to a want of the power to perceive logical inconsistencies, and some part to the habit of thoughtlessly expressing in private society opinions not seriously entertained. It has been remarked by an able writer, that were we to know what was said of us in our absence we could seldom gather the real opinions of the speakers: "there are so many things said from the mere wantonness of the moment, or from a desire to comply with the tone of the company; so many from the impulse of passion, or the ambition to be brilliant; so many idle exaggera-

tions, which the heart in a moment of sobriety would disavow; that frequently the person concerned would learn any thing sooner than the opinions entertained of him, and torment himself, as injuries of the deepest dye, with things injudicious perhaps and censurable, but which were the mere sallies of thoughtless levity *." A similar observation may be made with regard to moral and political opinions. Things are said in the social or the listless hour, when the mind relaxes from the tension of steady thought, which would be disowned when the intellect had collected all its forces, and was calmly and solemnly looking at the whole bearings of the subject. Besides, if it were not so, I think you judge the matter too rigidly. Actual simulation of opinions I will not defend; but surely there is a species of dissimulation, or (not to use a word with which unfavourable associations are connected) of

* Godwin's Inquirer, p. 312, ed. 1823.

suppression, which far from being culpable may be prudent and even meritorious, nay, absolutely necessary. I think I once heard you assert, that if any man were now to promulgate the moral and political opinions (could they be known) which will generally prevail at the end of two hundred years from this time, he would be hooted from society. In this sentiment I do not participate, as I see no room for so immense a change as it supposes, but on your own grounds a prudent reserve is commendable.

N. The sentiment was expressed perhaps too broadly, but without pretending to form a conjecture as to what such future opinions may be, I think it substantially correct. I will grant you, therefore, that it is prudent in a man to suppress any opinions flagrantly hostile to popular prejudice; but it is not, you will allow, high-minded; if it escape our contempt, it is not a species of conduct to raise the glow of enthusiastic admiration, to "dilate our strong

conception with kindling majesty," and to elevate us for a time at least above the dead level of our nature. The poet says—

" Give me the line that ploughs its stately course
Like the proud swan, conquering the stream by force*,"

and I confess my admiration will always follow him who boldly breasts the current of popular prejudice, forcing his way by his native energy. Nor can I help thinking, that such a man, if he combined undeviating coolness, moderation, integrity, and simplicity of mind, with great intellectual powers, would in the end extort the forbearance at least of the host of enemies who would rush to the encounter from the instinct of fear.

A. Such conduct would undoubtedly excite the admiration of a few, but it would be the destruction of the happiness of the individual unless he were singularly constituted. It is a fearful thing for any man to encounter the ex-

* Cowper.

ecration, or even the tacit condemnation, of the society in which he lives. And moreover it is questionable whether, supposing even his sentiments to be true, he would promote the cause by such a bold and reckless course. For any system of thoughts to be received with effect, the minds of the community must be in a state of preparation for it. If promulgated too early it is cast back into obscurity by the offended prejudices of society, or becomes a prominent object against which they are perpetually exasperating themselves. It is a light-house amidst the breakers. The genius of a Smeaton in philosophy would be required to erect an intellectual structure of this kind, capable at once of giving intense light, and withstanding the moral turbulence by which it would be assailed. A premature disclosure of any doctrine, you may rest assured, retards its ultimate reception. In fact, a forbearance to utter all that a man thinks is a species of continence necessary throughout the whole progress of civilization; at every step the commanding

minds of the age being in one state, and the feelings and opinions of the majority in another directly hostile to it.

B. I cannot exactly see the necessity of a discrepancy of this nature; but admitting that the commanding intellects of the age must thus differ in their views on many points from the bulk of mankind, it by no means follows that all who thus differ are to be ranked in that class. On the contrary, I should be inclined to say, that to be widely at variance with our own age is in most cases a mark of unsound understanding; and this seems more especially to follow (turning to N.) from *your* principles; for if the human mind is so exceedingly slow at the work of invention and discovery as I have often heard you represent it to be, it is an obvious inference, that we are not to look for many of those gigantic strides which place the man of genius far in advance of his contemporaries. The chances are, therefore, that singular views are erroneous views. Hence a proper diffi-

dence in himself, a sense of that liability to error which no one ought to feel more deeply than the philosopher, should make him hesitate when he finds his opinions peculiar to his own mind.

N. True, it should make him review them, probe them to the quick, try them by every possible test; but having done this, it would be absolutely culpable to suppress them merely from the consideration that they were singular, and therefore likely enough to be tainted with error. The latter indeed is a condition under which every man must promulgate his opinions.

A. But to return to the numerous diversities of opinion in society: my remark on that head was intended to apply not to the discrepancies in the opinions of the same mind, but to the differences subsisting between individuals and classes. It is astonishing, that with access apparently to the same sources of knowledge, under the same civil and political institutions,

with almost perfect freedom of intercommunication, operated upon daily by the same current of periodical intelligence from one end of the land to the other, pursuing similar occupations and similar amusements, the people should be divided into so great a variety of sects and parties, many of them of the most dissimilar and opposite modes of thinking. The fact is strikingly shown by the publications, and particularly the periodical publications of the day. Thus, not to mention that there is one set of journals for the ministerial party in politics, another for the opposition, another for the reformers, with advocates for a thousand intermediate shades of opinion, we have journals for the evangelical, the orthodox, the unitarians, the methodists, the deists, the phrenologists, the co-operatives, and others which might be specified; and these advocating, each of them, doctrines essentially repugnant and contradictory to those of all the rest. Is it not strange, that under the influence of all the

common circumstances which I have just enumerated, such very opposite views should prevail, and be advocated not only with considerable knowledge and skill but with the most thorough conviction of their truth? Does it not prove, either that truth is unattainable in moral, religious, and political inquiries, or that men have rushed into the midst of these subjects without stopping to ascertain the first principles on which they all must agree, and thus have involved themselves in a chaos of contradictions?

N. You recollect, I dare say, the remark of Locke, that although we cannot affirm that there are fewer opinions prevalent in the world than there are, yet fewer persons entertain them than we are apt to suppose; most people not having any clear ideas on those questions about which so much controversy is raised, and on which they themselves loudly assert their positive judgment.

A. But still you must allow, that the leading

minds of each party do really hold them, especially in cases where interest is out of the question, which is sufficient for my purpose, it being in fact still more extraordinary that minds of this description, minds consequently of considerable powers and superior information, with the same sources open to them, should exhibit such contradictory appearances, or in other words entertain such opposite views.

N. Such discrepancies show, that the individual circumstances which shape our opinions predominate over the general causes to which we are all subjected. They can exist only in a very imperfect state of knowledge, such as I have contended ours to be, where men's modes of thinking have resulted from chances of a thousand kinds, and have not originated in a systematic deduction from undeniable premises. You, I think, have well described the general course of even thoughtful men, rushing into the midst of subjects without an examination of first principles and a regular progress

from them; or rather they find themselves from circumstances in the midst of the subjects, and never think of remounting to any primary truths, or stepping out of the magic circle described around them by the age and country and rank in which they came into existence. Engrossed with the established ideas of their system, they exercise their ingenuity in discovering the relations of its parts; and in the pleasure of the occupation they never think of setting themselves at a distance from it, viewing its external aspect, marking its position in the world of intellect, surveying its relations as a whole to truth and to nature. This is frequently exemplified in the laborious trifling of antiquaries and commentators, who will often display wonderful skill and acuteness in the adjustment of some worthless point, which their own exertions alone have invested with something like importance. The weakest theory, or the most fallacious system of philosophy, will in like manner hold in bondage the strongest minds, who are often so intently occu-

pied with its intrinsic relations as to forget its extrinsic absurdity. In the limits by which they are thus circumscribed, they sometimes exert the highest powers of intellect, and leave nothing for us to bewail but the barriers with which birth and education and other circumstances have surrounded their understandings. A mind thus hemmed in is in a situation somewhat similar to that of a man who has been shut up in a strong castle from his birth, and has therefore had no means of viewing the outward appearance and relative position of the building. His conception too of external objects, as it has been acquired merely by glimpses through the window, is narrow and imperfect; and his comparative estimate of such external objects, and those within his reach, must be disproportionate to their real difference. Let him once escape from the castle, and his ideas undergo a complete revolution. He gets into the pure breezes of heaven, the open daylight, and the free exercise of vision. A similar happy transition is ex-

perienced by the mind which has once disengaged itself from the prejudices of any system in which it has been cooped up. With regard to the diversities of views and doctrines which have led to these remarks, I rejoice to see them. I am glad to see the co-operative erecting his parallelograms, and the phrenologist mapping out the skull. I cannot comprehend that delicate sensitiveness which is alarmed at novel and extraordinary opinions, as if the structure of society would be demolished and the globe itself shattered by their promulgation.

B. How then are we to deal with doctrines which appear to be dangerous? Are we to stand idle and allow them free course?

N. Examine them: look them in the face: if they are false, they will vanish before the gaze of scrutiny: if they are true, I dare any man to say that they ought to vanish.

B. Your reply is what I expected, but I have another question to ask in which you may find more difficulty. Truth is one, error is

pernicious; how then can you rejoice in the existence of diversities by which the uniformity of truth is excluded.

N. When I say I rejoice, I speak of course in reference, not to what is absolutely good, but to our actual state. The world is full of ignorance and error, and I am glad to see a zealous pursuit of even singular and eccentric views, as the means of ultimately lessening the evil. Tentative processes of this kind are indeed indispensable steps. The grand experiment which Mr. Owen is making in America, even if it miscarry, is sure to throw light on the principles of human nature. Even the modern phrenology, should it prove utterly unfounded, will be of use. The prosecution of its inquiries will furnish a body of curious facts to the philosophical speculator; and if ultimately exploded, it will be to the philosophy of mind what alchymy was to chemistry. The same benefit I own does not spring from a diversity of religious sects, because theology is considered as a matter not open to progressive

improvement. Each sect has its fixed doctrines, and the object is not to discover new truths, but to prevent any lapse from the principles prescribed. All inquiry with them is after new arguments to support old opinions. Yet here, although intellectual enterprise is discountenanced, contention and collision are brought into play; the contention of rival sects and the collision of hostile opinions, forcing an examination of points which men would fain shield from inquiry, extorting concessions which can no longer be decently withheld; and thus producing some of the good effects of that spirit of research and discovery which in less important sciences meets with such lavish encouragement. Although each sect may consider its own system as perfect, it has charity enough to assist in stripping other systems of their errors.

B. Then you regard all these diversities of thinking with great complacency?

N. They are really exhilarating in an enlarged view of the subject. At any given

point of the progress, in any given state of knowledge or of ignorance, it is much better that the ignorance and the error should be of a multiform than a uniform character. With my views, therefore, it is somewhat ludicrous to see the anger, the vexation, the resentment, with which the generality of men regard those who differ from them in opinion. Such difference seems to be felt as a sort of personal offence, as an intolerable grievance which must be repressed. Wounded self-love looks around it, and can find nothing short of an act of parliament or a judicial sentence adequate to the task of avenging its wrongs. What is the simple light, however, in which philosophy and common sense would see these differences? They would see, first, that the subject in question required examination; and, secondly, that it was likely to obtain the examination which it required. The permanent existence of any differences of opinion on any subject shows of itself, either that truth has not been fully attained by any of the dissentient parties, or that

it has not been deduced in the most perspicuous method; and, therefore, that there is still a necessity for animadversion and discussion.

B. It is implied then in your view of the subject, that truth in these matters is attainable; that there are certain determinate principles which may be discovered, and from which indisputable deductions might be made.

N. Certainly. I see no reason to doubt it, and our friend A, who is so sanguine as to the progress of knowledge, must inevitably accord with me.

A. True: but others may ask how are such principles to be ascertained?

N. By a very slow but a tolerably sure process; by generation after generation thinking, and speaking, and writing; by proposing doubts and hypotheses; by criticism, by argument, by ridicule; by all the play and contention of wit and folly, scepticism and pertinacity, sophistry and good sense. From these discordant elements let loose on every possible

subject of inquiry, we may ultimately expect that enlightened and lasting unanimity which always attends the clear and simple exhibition of truth.

B. But still you will allow, that there are some subjects which will probably ever remain dubious, difficult, and obscure; and which as long as the world lasts must inevitably engender differences of opinion.

N. I will not undertake to say that there is no subject which is doomed to be encumbered with eternal difficulties; but this I will venture to affirm, that of whatever kind they are they will be accurately estimated and set in their proper light. The nature and the degree of the evidence on each point will be appreciated; the valid inferences, few or many, which the subject affords will be clearly shown; the absurd conclusions previously drawn from it will be exploded; what it will and what it will not furnish will be rendered equally manifest; and although the obstacles to a perfect comprehension of it may never be surmounted, there may

be complete unanimity as to the character of the difficulties which it presents. No reason can be assigned why all this should not be accomplished, and this is in fact for us, for human beings, the attainment of truth.

B. Although I am not for my own part very sanguine as to any great progress in the human race, I would not deny that there might be a considerable one amongst a few superior minds, who are to be found in every age, and who, forming an unbroken series, might carry on indefinitely the work of perfecting the sciences: but I much doubt the possibility of any corresponding or rather any commensurate progress in the multitude. It is one thing for the sciences to go on improving, and another for the mass of mankind to become progressively partakers of such improvements.

N. The progress will be slow; nor will I undertake to maintain that it will be altogether commensurate with the advances of those superior minds to whom you refer; but nothing I think can prevent it. The same principles of

human nature which render a science progressive among learned and studious men, will make knowledge progressive in every class. There is a certain measure of intelligence, or rather there is a certain set of notions, which every one inevitably imbibes, even the lowest of society; a certain atmosphere of knowledge breathed in common by all; and these notions depend upon the state of knowledge amongst those whose particular business it is to apply themselves to its cultivation. Now the correctness or incorrectness of the notions thus imbibed, makes no difference in the ease with which they are acquired. The mind of a child receives with as little difficulty the enlightened opinions prevalent in the best English society as the ruder notions of the Hindoo or Hottentot. Unless, therefore, the communication between the high and the low, the learned and the unlearned, is cut off, the latter cannot help partaking of the progress of their superiors. But it requires no evidence to show, that the tendency of modern improvement, far from threatening to

interrupt or embarrass this communication, is decidedly to render it easy and complete. In fact, the sources of intelligence are open to all ranks indiscriminately. External obstacles to the general spread of sound knowledge are fast giving way. It is in the nature of the human mind itself, that we shall detect the most formidable impediment. We shall find it generally true, that discoveries are both slowly made, and slowly received and adopted. After a man has arrived at maturity, trained in certain fixed principles, prejudices, and habits, it is impossible to change them essentially; and, even if his opinions could be changed, his associations and feelings would prove rebels to his intellect. Hence, as I have before observed, it is the young on whom any improvement is to be impressed; and hence it is an age at least which must be granted for its perfect establishment. Thus the wisdom of the pre-eminent few of one generation cannot become the common property, the familiar instrument of the crowd, till the next or a still later age; and it appears to

me, that this process is one which comparatively little can be done to hasten, but which much may be done to perfect and extend.

A. Here again we come to our old point of disagreement. After all you have urged, I see no reason for departing from the opinion which I before maintained, that the wider and wider diffusion of knowledge amongst mankind must inevitably accelerate the progress of the race. The scope of your doctrine, which appears to me to involve a striking inconsistency, is to show, that a greater number of mankind may be made to partake of the progress, but that the rate of the progress cannot be quickened. You maintain in effect, that the general dissemination of knowledge has little or no tendency to render mankind readier to part with their prejudices; that what each man learns in his youth he must retain with a pertinacity equal and unalterable; and that even the most enlightened individual of the present day, after he has reached a certain age, is as callous to further improvement, as firmly

indurated in his notions, as inaccessible to new ideas, as the rude barbarian of the American wild or the benighted chieftain of the middle ages: or if you do not go quite so far as this; if you would reject this application of the doctrine to the philosopher, you must at least maintain that the nature of the opinions which an ordinary man imbibes in that atmosphere of intelligence described by you as surrounding his infancy, can make no difference as to the tenacity with which they subsequently cling to him. In all this there appears to me to be an inconsistency for which I can account only by supposing, that it has been concealed from your view by a strong prejudice as to the slow progress of the race, resulting from a disappointment of your sanguine visions on this subject in early life. What! supposing a man's mind to be imbued in youth with liberal and enlightened sentiments, supposing him to gather without any direct effort on his own part, but from the actions and conversation of those around him, "that the human mind is

necessarily fallible, that therefore it should never close itself against new light, that it should be constantly accessible to fresh ideas, and ever on the watch to correct its errors; that truth and not its own importance should be its sacred object in all inquiries and on all subjects,"—supposing a man, I say, to be imbued with these views, are we to conclude that notwithstanding their influence he would be as inveterate, as stubborn in his prejudices, as unsusceptible of melioration as the most benighted of his species; as the deluded victim, for example, who casts himself under the chariot wheels of an idol, the superstitious devotee who heroically lashes himself as he conceives into the favour of God, or the furious bigot who exterminates heresy by the rack and the scaffold?

When the matter is put in this light, I think you must allow, that in proportion to the real intelligence of men will be their openness to conviction, their disposition to receive new ideas, their readiness to review their cherished

opinions; and that a step of improvement may come in time to require something less than an age.

B. But you have forgotten another part of our friend's remark, in which I am fully disposed to join him, the necessary slowness with which the human mind makes any improvements, any inventions or discoveries.

A. To this part of his remarks an equally conclusive answer may be given. A great part of the slowness with which discoveries have succeeded each other, may be ascribed to the tardy and limited diffusion of knowledge. N. himself has made the remark, that one discovery must spring from another; that a man of inventive genius must rise from the height to which the labours of his predecessor have carried him. Now for a series of improvements and discoveries of this kind, I see no necessity for the intervention of long periods of time. If a man of original talent has the power of rising from the discoveries of his predecessor, he may do it, or begin to do it from the moment

they are known to him; and thus one man taking up the achievements of another, there may be a series of them even amongst contemporaneous inquirers. The only requisite condition seems to be a ready and immediate promulgation of all that is accomplished. Formerly indeed what any one man discovered made its way slowly and laboriously to others engaged in the same pursuit. Perhaps he would pass from the scene before his labours were understood and appreciated, and in such a state of imperfect inter-communication a barren interval must undoubtedly elapse between almost every successive discovery in the same science. This lapse of time, however, was required solely to propagate the intelligence amongst those who were likely to make use of it. At present, when the diffusion may be effected with the instantaneousness of lightning, when the world has become an immense whispering gallery, and the faintest accent of science is heard throughout every civilized

country as soon as uttered, the requisite conditions are changed. Long intervals are no longer necessary, and the career of improvement may be indefinitely accelerated. Besides, not only are discoveries more rapidly communicated to discovering minds, and the intervals of the series reduced almost to nothing, but with the general diffusion of knowledge, more of these original intellects start forth, and thus another cause is brought into operation to swell the train and hasten the triumph of science.

N. Your observations are ingenious and to a certain extent perfectly just, nor do I know that they are at all inconsistent with my own views, except inasmuch as they lead to expectations of too sanguine a character. The process of improvement, and the circumstances which tend to accelerate what has been significantly and sometimes sneeringly termed the march of mind, you have accurately described. The only real difference between us is as to the

rapidity of the progress; and I still think, that if you were to examine the condition of society with a severe scrutiny, if you were to make yourself practically acquainted with the intellectual state of the mass, if you were to see, as I have seen, that the glare of modern civilization is owing to the superficial illumination which the intelligence of a comparatively few has cast over the many,—in thus perceiving how little had actually been done, you would be inclined to grant more time for the evolution of those great and glorious results, which we unite in hailing as the ultimate destiny of the human race.

ESSAY

ON THE

UNIFORMITY OF CAUSATION,

EXPLAINING

THE FUNDAMENTAL PRINCIPLE OF ALL EVIDENCE AND EXPECTATION.

ESSAY III.

ON

THE FUNDAMENTAL PRINCIPLE

OF ALL

EVIDENCE AND EXPECTATION.

CHAPTER I.

ON THE ASSUMPTION IMPLIED IN ALL OUR EXPECTATIONS, THAT LIKE CAUSES WILL PRODUCE LIKE EFFECTS, OR OF THE FUTURE UNIFORMITY OF CAUSATION.

It is now generally admitted by philosophers, that there are a number of truths which necessarily arise in the mind in certain circumstances, and which are not the result of any logical deduction. Such are the existence of

the external world and the identity of our own minds. The belief of these truths without any process of inference or argumentation, is a fact in the philosophy of mind which it is impossible to deny. It is justly remarked by Dr. Brown, that without some principles of immediate belief, we could have no belief whatever; "for," he continues, "we believe one proposition because we discover its relation to some other proposition, which is itself perhaps related in like manner to some other proposition formerly admitted, but which carried back as far as it may be, through the longest series of ratiocination, must ultimately come to some primary proposition, which we admit from the evidence contained in itself, or to speak more accurately, which we believe from the mere impossibility of disbelieving it. All reasoning, then, the most sceptical, be it remarked, as well as the most dogmatical, must proceed on some principles which are taken for granted, not because we infer them by logical deduction, for this very inference must then

itself be founded on some other principle assumed without proof, but because the admission of these first principles is a necessary part of our intellectual constitution*." "In ascending," says Buffier, "from one proof to another, propositions must at length be found that require none, otherwise life would be consumed in accumulating proofs, without proving any thing decisively†."

Amongst the primary truths which are necessarily assumed or taken for granted in this manner, one of the most important is the uniformity of causation. In all our anticipations of events, in all cases of applying to the future our experience of the past, we unavoidably assume the fundamental principle that every cause will continue to produce the effect by

* Lectures on the Philosophy of the Human Mind, by Dr. Thos. Brown, vol. i, p. 283.

† First Truths, by Pere Buffier, p. 5 (English Translation, 1780). Aristotle has some passages to the same effect, which Dr. Beattie has adduced in his Essay on Truth, p. 40, fifth edition.

which we have hitherto found it attended. A very short explanation will be sufficient to make this perfectly clear.

When I throw a piece of paper into the fire, it is obvious that I do it under the expectation that the paper will be consumed. But why do I form this expectation? Because I have found by experience that fire has the property of consuming paper. This is a reason which would be perfectly satisfactory to every mind in actual life: the metaphysician, however, although perfectly satisfied with the validity of the answer, still asks why, because you have found in your past experience that fire has consumed paper, do you conclude that it will now exhibit the same destructive quality? By what logical process do you infer that the same cause will continue to produce the same effect? Show me the steps of your reasoning.

All the reply which can be given to this demand is what philosophers have already given. It is, that I assume or expect that fire will destroy paper as it has hitherto done,

without any process of reasoning, any deduction from any other principle. I naturally and irresistibly take it for granted. You yourself continually act on a similar assumption; for in putting your questions to me or any other person, you take for granted, you assume without thinking of it, that your words will reach the ears of him for whom they were intended, and excite ideas in his mind, as you have found them to do in time past. In placing your foot on the ground, in taking up your pen, or in eating your breakfast, you still expect that the objects around you, the subjects of your operations, will retain their usual properties; that the earth will not open a gulph beneath your feet, that the pen will not melt in your grasp, and that the food which has hitherto nourished you will not turn to poison on your stomach. In a word, from the same causes you and every other human being necessarily anticipate the same effects. This uniformity is the essential principle of all expectation.

This subject has been so ably treated by former writers, that it is unnecessary to enlarge upon it here. The short explanation which I have introduced is intended merely to serve as a basis for subsequent reasonings; and to one who wishes to enter deeply into an important metaphysical question, it can by no means supersede the necessity of a reference to the works of Hume, Reid, Stewart, and Brown.

Mr. Hume was the first who distinctly showed that the uniformity of causation was not an inference from any other truth; that it was not a logical consequence of any principle or proposition previously admitted: that in applying the past to the future there was a step taken by the mind which required explanation. The errors into which this great metaphysician fell in attempting to account for our expectation of similar effects from similar causes (an expectation which he resolved into the sole influence of custom), have been subsequently corrected by the three other eminent writers above-mentioned, the last of whom has explained and

illustrated the subject with so much acuteness and precision, that the doctrine may be regarded as perfectly established and defined, although still capable of affording inferences and views, which even he with all his perspicacity failed to observe, or neglected to unfold in that regular order in which they may be exhibited.

Before proceeding to point out some of these latent consequences, it may be useful to call the attention of the reader to a distinction which is apt to be overlooked,—the distinction between the physical truth, that the same causes produce the same effects, and the mental fact, that we assume or take for granted this uniformity in the operation of causes. In speaking of the former I shall employ the phrases, uniformity of nature, uniformity of the laws of nature, or uniformity of causation; in speaking of the latter, or the mental fact, I shall term it an assumption of the uniformity of causation, or I shall speak of it as a principle or law of

mind by which we take for granted that like causes have like effects.

In regard to any primary principles unavoidably assumed by the constitution of our nature, or necessarily involved in the very process of thought, it is obvious that every proposition inconsistent with them, and every argument directed against them, must imply an absurdity. The disputant would in fact be contending against a principle which he himself was under the perpetual necessity of taking for granted. In the case of the truth which is the subject of the present essay, this would be peculiarly manifest. The acts of speaking and writing always presuppose an expectation that objects will retain their properties, or in other words, that the same causes will produce the same effects; and consequently he who enunciates a proposition inconsistent with the uniformity of causation, is expressly denying what in the denial itself he implicitly assumes.

CHAPTER II.

THE UNIFORMITY OF CAUSATION IS ASSUMED WITH REGARD TO THE PAST AS WELL AS TO THE FUTURE.

FROM the representation in the preceding chapter it appears to be an unquestionable matter of fact, that we in all cases expect like effects from like causes; or in other words, assume the future uniformity of causation.

This expectation of the future, as it is the most remarkable circumstance connected with the present subject, has so much engaged the attention of philosophers, that they seem to have overlooked or only slightly noticed another fact equally obvious when stated, and pregnant if possible with more important consequences. Or, to express myself differently,

they appear to have attended to only one half of the truth. They have clearly discerned in what manner we unavoidably expect the future to resemble the past; how we always assume that the same causes *will continue* to produce the same effects; but they have bestowed little regard on the equally clear fact, that in all our reasonings about the past we as necessarily assume that like causes *always have* produced like effects.

This assumption of the past uniformity of causation will be apparent on the slightest reflection. To have recourse again to our instance of throwing paper into the fire: it is obvious that I not only expect the paper to be burnt, but I assume that fire has always possessed the property of consuming that substance. As a proof that this assumption is involved in my thoughts, it is only necessary to trace the process of my mind in rejecting a narration at variance with my own experience. Should any one assert, that at a former period of his life he had thrown paper into the fire,

suffered it to remain for five minutes in the flames, and then taken it out unscorched and unconsumed, I should instantly regard the relation as false, and should think it a sufficient refutation to throw a piece of paper into the fire, and thus prove to the narrator the impossibility of what he had asserted. But why could not paper have remained in the flames for five minutes unconsumed? Because the experiment before us proves that fire has the property of destroying it. Should any one push his inquiries further, and ask why, because you find that fire has at present this property, do you infer that it has always possessed it? I can only reply, that it is an assumption which I necessarily make. I cannot even think of the past without taking for granted that the same causes have produced the same effects in every age and every country.

It has been observed by Mr. Stewart, in speaking of that law of belief (to use his own words) which leads us to expect the continuance in future of the established order of physical phenomena, that "a very striking illustration

of this presents itself in the computations of the astronomer; on the faith of which he predicts, with the most perfect assurance, many centuries before they happen, the appearances which the heavenly bodies are to exhibit*."

Now it is certainly a no less striking illustration of our belief in the past uniformity of causation which is presented to us by modern astronomical computations of the celestial phenomena of former ages. The astronomer, in the absence of all testimony on the subject, without the slightest direct evidence of any single event, unhesitatingly proceeds in his calculations on the established order of the solar system, and particularizes the eclipses which have taken place thousands of years before the date of authentic history, with quite as much confidence as he predicts the appearances of the heavenly bodies in ages yet to come. That this uniformity of causation is assumed and not inferred with regard to the past,

* Elements of the Philosophy of the Human Mind, chap. ii, sect. 4, of vol. ii.

just as it is with regard to the future, is abundantly manifest. The same illustration may be used in both cases. Take for instance the usual method of showing, that the future uniformity of the laws of nature is not a legitimate inference from our antecedent observations. In the words of Dr. Beattie: "The sea *has* ebbed and flowed twice every day in time past, therefore the sea *will continue* to ebb and flow twice every day in time to come, is by no means a logical deduction of a conclusion from premises*." With equal force may the reasoning, "The sea *now* ebbs and flows twice every day, therefore the sea *has always* ebbed and flowed twice a day in times past," also be denied to be a legitimate inference.

Or let us take the words of Dr. Brown: "A stone tends to the earth—a stone will always tend to the earth, are not the same proposition; nor can the first be said to involve the second†." Precisely the same remark is appli-

* Essay on Truth, second edition, p. 126.

† Lectures on the Philosophy of the Human Mind, vol. i, p. 122.

cable to the two propositions, "a stone tends to the earth — a stone has always tended to the earth." These are equally remote from identity and from being reciprocally involved.

The truth is, that the expectation we instinctively entertain of the future uniformity, and the conviction as instinctively present in our own minds of the past uniformity of the laws of nature, may be resolved into one general principle of belief, which is identified with all our thoughts and actions, that the same antecedents have been, are, and will be followed by the same consequents.

In observing that philosophers in general have overlooked the truth, that in reasoning on events which *have* taken place we necessarily assume the past uniformity of causation, as in calculating on those which *are* to take place we necessarily assume the future uniformity of causation, it is not intended to maintain that the fact has not been incidentally noticed or even expressly asserted. As far as I have examined, however, their notice of it has been casual, and they appear in no instance to have

been aware of the consequences to which it ultimately leads. The only exception to any part of this remark is Dr. Thomas Brown. Hume has several passages in which the fact is recognized. Dr. Reid less explicitly asserts it*. Dugald Stewart perhaps less explicitly than either. All of them, however, seem too entirely occupied with the expectation regarding the future, to feel the importance of the retrospective application of the same identical principle. When the latter writer speaks of this elemental law of thought, as he terms it, it is under the character of "an expectation of the continued uniformity of the laws of nature;" or, "a principle of the mind by which we are

* There is one passage, however, in Dr. Reid's Essays on the Intellectual Powers which states it with clearness and precision: "What conclusions," he asks, "does the philosopher draw from the facts he has collected? They are, that like events have happened in former times in like circumstances, and will happen in time to come."—Essay vii, chap. iii. The only fault in this passage is, that what are in truth unavoidable assumptions are represented as conclusions drawn from facts.

led to apply to future events the results of our past experience*." In the same style Dr. Reid speaks of it as "an original principle, by which we believe and expect the continuance of the course of nature, and the continuance of those connections which we have observed in time past†." In another place he designates it as "an instinctive prescience of the operations of nature," "a prescience that things which have been found conjoined in time past, will be found conjoined in time to come‡."

Hume has been less engrossed than either of the two philosophers last mentioned with the prospective character of this principle. In the beginning of his Sceptical Doubts several of his positions imply, that this assumption of the uniformity of the laws of nature is involved in all our reasonings concerning the past: his assertion for instance, "that it is by means of the relation of cause and effect alone that we can

* Elements of the Philosophy of the Human Mind, vol. ii, chap. ii, sect. 4.

† Inquiry into the Human Mind, chap. vi, sect. 24.

‡ Ibid.

go beyond the evidence of our memory and senses." The same truth is also implied in a passage where he maintains that past experience can be allowed to give *direct* and *certain* information of those precise objects only, and that precise period of time which falls under its cognizance. In another place he asks why experience should be extended to future times and *other objects*; but if these passages show that he had a glimpse of the truth, they show also that it was partial and fugitive. Like the other writers he slides into the consideration almost exclusively of the application of the past to the future. "All our experimental conclusions proceed upon the supposition, that the future will be conformable to the past." And another passage plainly indicates that this view of the subject almost wholly engaged his attention. "Let the course of things," says he, "be allowed hitherto ever so regular, that alone, without some new argument or inference, proves not that for the future it will continue so."

Dr. Thomas Brown, who has treated this subject with more precision and accuracy than any other writer, seems to have been fully aware of the fact, that we assume the uniform operation of causes in our speculations on the past as well as on the future. "The change," he says, "which we know in the actual circumstances observed, we believe to have taken place as often as the circumstances before were similar; and we believe also, that it will continue to take place as often as future circumstances shall in this respect have an exact resemblance to the present." And again, "the utmost perfection of our mere senses could show us only what *is;* at the moment of perception, not what *has been*, nor what *will be;* and there is nothing in any qualities of bodies perceived by us, which, without experience, could enable us to predict the changes that are to occur in them. The foundation of all inquiry with respect to phenomena as successive, is that most important law or original tendency of our nature, in consequence of which, we

not merely perceive the changes exhibited to us at one particular moment, but, from this perception, are led irresistibly to believe, that similar changes have constantly taken place in all similar circumstances, and will constantly take place as often as the future circumstances shall be exactly similar to the present*."

Although this eminent philosopher has thus most clearly expressed the truth which I am now endeavouring to illustrate, he appears not to have methodically considered it in its most important applications, and to have been with the rest disproportionately engrossed with what he terms "the conversion of the past into the future." It is one thing to have an incidental perception of a truth, or to touch it casually in the circuit of our speculations, and another to see it in a clear light, to make it the direct object of our attention, to ascertain its full value, and to pursue it into all its consequences.

* Lectures on the Philosophy of the Mind, vol. i, p. 184.

CHAPTER III.

THE UNIFORMITY OF CAUSATION CANNOT BE ESTABLISHED BY EXPERIENCE AND TESTIMONY.

To the representation of the subject in the preceding chapter, it will probably be urged as an objection, that we by no means assume that causes and effects have always been uniform in their sequence; but on the contrary are indebted for the knowledge of this fact to experience and to history. How should we know, it may be said, that human beings formerly lived on this earth; that fire has always consumed wood, corn afforded nutriment, and water quenched thirst; how should we know all these things but from the voice of history, the testimony of our fellow-men? From what

other source could we derive the knowledge, that there has been a regular succession of day and night, of summer and winter, that the sun has dispensed light and heat for thousands of years, that the moon for an equal period has passed through her incessant circle of changes, and that over the heads of countless generations the stars have ceaselessly glittered in the sky, making night beautiful, and exciting the awe and admiration of mankind?

In considering this objection, it is necessary to call to mind in the first place the distinction which we are constantly apt to overlook between the general principle, that like causes have like effects, and particular instances of causation. The principle itself must be assumed before we can draw any inference from the present to the past or to the future; but what particular effects result from particular causes must be collected from observation. After we have found that a certain cause produces a certain effect, we unconsciously take for granted, that whenever that particular cause

has been in operation that particular effect has followed. The sequence itself is gathered from observation or experience; but the uniformity of the sequence is irresistibly and unavoidably assumed.

We know, for example, that human beings formerly lived on this earth as at present from the traces which they have left; that is, from the effects which they produced while in existence, or the remains of their bodies. What effects human beings produce we learn from experience; but unless we take for granted that causes and effects have a uniform connection, we cannot infer from any existing appearances what agents were concerned in their production; discard this principle, and the traces which we now regard as left by men similar to ourselves may have been occasioned in a thousand modes which it is impossible to imagine.

The two sources which supply us with information regarding past events, and to which the objection under notice attributes our know-

ledge of the uniformity of causation, are personal experience and testimony; and in order to ascertain how far these could enable us to arrive at this principle, it will be necessary to examine them separately.

All that a man's personal experience reaches to manifestly is, that he has observed certain successions in the phenomena of the world, material and mental. He may have observed, for example, that lead has invariably sunk in water. The instances of this which he has actually witnessed may have been a hundred; and the simple amount of his experience consequently is, that lead has sunk in water a hundred times. As far as these instances go, he may be said to have gathered the uniformity of causation from personal experience: but his experience can tell him no more than that this uniformity has taken place in a hundred trials; and the moment he extends the same uniformity to other instances, he leaves the confined circle of personal observation, and

proceeds on the irresistible assumption of which we have so often spoken.

It may be remarked too, that his conviction that lead will sink and has always sunk in water is as thorough after one trial as after a hundred. If we at any time repeat an experiment, it is not because we doubt whether the same causes always produce the same effects, but it is lest any of the causes or effects should have escaped our observation.

In the next place, we have to examine whether this uniformity of causation can be gathered from testimony.

And first we may remark, that the testimony of another can vouch only for what he himself has witnessed. If my neighbour has observed lead to sink in water a hundred times, and I have done the same, our conjoint experience amounts only to this, that lead has sunk in water two hundred times, while the conviction we have or the assumption we make is universally comprehensive.

In the second place it is important to remark, as will be more fully shown hereafter, that our reliance upon testimony itself proceeds on the assumption of that very uniformity of causation, which testimony by the objection under notice is supposed to prove. When I am told by my neighbours that they have observed the same particular succession of events which I myself have witnessed, I believe them, because I have found them individually men of veracity, or because I have found men in general adhere to truth in circumstances similar to those in which their testimony is given. What is the ground of my reliance in this case? Not simple experience, because that could tell me only that in a certain number of instances men had acted in a certain manner; it could not inform me that they still continue to act in the same manner, and yet I believe they do in the instance in question, on the inevitable assumption of the uniformity of causation. Thus testimony cannot prove this uniformity, because we must

take the principle itself for granted in bringing testimony to prove it.

From these considerations it clearly appears, that our own personal experience can prove the uniformity of causation only in those individual instances where we have witnessed it; that the testimony of others in like manner can prove this uniformity only in the number of cases which have fallen under their observation; and that testimony itself, or rather our belief in it, involves the assumption of that uniformity which some people would adduce it to prove.

CHAPTER IV.

THE UNIFORMITY OF CAUSATION IS ASSUMED IN ALL OUR CONCLUSIONS RESPECTING MENTAL AS WELL AS PHYSICAL PHENOMENA.

THE preceding chapters have sufficiently established and illustrated the fact, that in all our thoughts and reasonings concerning events, we unavoidably proceed on the assumption that similar effects have always arisen and will always arise from similar causes.

So far I have restricted my observations almost exclusively to physical changes, because I wished to keep out of view the consideration of mental events till the precise nature of that law of thought which forms the subject of the

present essay had been elucidated. But we should have a very imperfect view of the subject if we rested here. It is evident that we must proceed on this or some similar principle in our moral reasonings; and I shall endeavour to show, that the same assumption of the uniformity of causes and effects is involved in all our conclusions respecting moral and intellectual phenomena.

It has been already remarked, that when we throw a piece of paper into the fire, we do it under the expectation that the paper will be consumed. In like manner, when I write a letter to a friend, I do it under the impression that his intellectual qualities will continue the same as I have hitherto found them; and that the associations established in his mind between certain words and certain ideas will be the same as heretofore. I take for granted that the black marks in my letter will continue to introduce into his mind the thoughts which I design to convey, just as I take for granted that lead will sink in water, or snow melt in

the sun: and in addressing my arguments to his understanding, I proceed on the assumption of its retaining all its usual powers. This holds in respect not only to individuals, but to mankind at large. The predictions of the astronomer, to which I have already alluded, proceed on the assumption, not only that the heavenly bodies will continue to be governed by the same laws, but that mankind in after ages will retain the same faculties as they now possess.

With regard to the operations of the understanding the fact will be at once admitted. If there is any difficulty in the matter, it must attach to the question whether the same uniformity of causation is assumed in the case of affections, passions, and volitions. But we shall discern no difference in this respect amongst all these classes of mental phenomena. With regard to all we unavoidably proceed on the same assumption. When I announce to my friend the accomplishment of some wish long cherished in his heart, I confidently anti-

cipate the joy which my communication will excite; exactly on the same principle which leads me to expect that the stone which I throw into the air will fall to the ground. When I enter a bookseller's shop to purchase a book, I as fully calculate on his parting with the volume for the customary price, as I presume on the combustion of paper when thrown into the fire. If I attempt to persuade a fellow creature to refrain from a meditated crime, my advice proceeds on the same assumption, that similar moral effects will follow the moral causes with which they have been hitherto found conjoined. I point out perhaps the consequences of the action in rousing the indignation of mankind, and leading them to inflict punishment on the perpetrator; or I endeavour to show the remorse by which it will be pursued in his own breast. And if he were to ask me how I could tell that these effects would follow, I should answer, that they had been found to do so in similar cases. Should he proceed still farther in his inquiries, should he

request to know how I could tell that the same effects would again attend the same causes, I could merely answer, that the assumption of this uniformity of sequence was a necessary condition of thought which neither he nor myself could avoid; and that his own questions afforded an instance of it, since they proceeded upon the expectation, not only that his words would reach my ears as in times past, but that certain ideas and volitions would be excited in my mind as heretofore, the result of which would be an answer to his inquiries.

It may be objected, however, that our confidence in these cases is not so great as it is in regard to physical events; that there is always more or less of uncertainty in our anticipations; that my correspondent may not be able to read my letter, since he may have lost his memory; that my other friend may have changed his views, and may feel no joy at the accomplishment of his wishes; that the bookseller may refuse to part with his volumes; and that in the last hypothetical case adduced, mankind may

no longer feel incensed at those actions which formerly roused their indignation.

The reply to this objection is not difficult. In all these cases there is no want of faith in the uniformity of causation: our uncertainty by no means relates to the principle itself, but to the point whether all the same causes, and no other, are in operation: and if the event at any time turn out contrary to our expectations, we feel well assured of the presence of some extraordinary cause — an assurance evidently proceeding on the assumption, that if the causes had been the same the effects must also have been similar. Thus if my correspondent is unable to read my letter, if he no longer connects any meaning with the written words, I am convinced that some extraordinary calamity has befallen him. If the bookseller refuse to sell me his volumes, I feel no hesitation in ascribing his conduct to some particular motive not usually at work in his mind: all proving, not that there is a want of uniformity in the sequence of causes and effects, but that

there is a different assemblage of causes; that some essential circumstance has been left out, or some unusual one has crept into the accustomed combination.

As this part of the subject leads to some interesting conclusions, I shall endeavour to show in the next chapter, that whatever certainty or uncertainty we feel in regard to moral events, particularly voluntary actions, is precisely the same as that which we entertain in the case of physical changes, and that in this respect the two classes of phenomena are exactly on an equality.

After so amply proving that we necessarily assume the uniformity of causation in moral events with reference to the future, it will scarcely be needful to show that we equally assume it with regard to the past. All that I have said in a former chapter on the retrospective application of this principle, will be found applicable *mutatis mutandis* to the subject before us. The powers and passions which we

now discern in the human mind, we assume to have always existed, and to have operated in a similar manner; and that we do not derive our conviction of this uniformity from testimony is still more apparent in the present case than the other, since testimony itself is a moral event, a voluntary action, and therefore cannot prove that itself is invariably connected with certain causes.

CHAPTER V.

OUR CERTAINTY AND UNCERTAINTY IN RELATION TO MORAL ARE OF THE SAME NATURE AS IN RELATION TO PHYSICAL EVENTS.

It is proposed to show in the present chapter, that whatever certainty or uncertainty we feel with regard to voluntary actions, is precisely of the same character, and arises from the same causes as that which we feel with regard to physical changes: and that in many cases our certainty is not less in respect to the former than to the latter.

For the sake of perspicuity and comparison we may divide physical events into several classes, and examine our feelings of this nature in regard to each.

1. There are some events observed to be so invariably connected with others, that when one takes place we feel perfectly sure that the other will follow. Thus it is impossible to doubt that when a piece of lead is thrown into water it will sink; that when flame is applied to gunpowder an explosion will ensue; that when an elastic ball is thrown upon a hard floor it will rebound; and that when we press the keys of a harpsichord we shall produce certain musical sounds.

2. The preceding events depend on something antecedent, which may or may not take place. The sinking of a piece of lead depends on its being placed in the water, and all that we can predict is, that if such an event come to pass, such a result will follow; or that in given circumstances a certain event will happen. But there is another class of events placed beyond accident or control, which may be the objects of absolute prediction, which depend on no previous supposition, and which we calculate upon with perfect assurance; such

as the eclipses of the sun and moon, and the motions of the heavenly bodies in general.

3. There is another and very large class of phenomena which are placed beyond the reach of human foresight, which to us are uncertain: the state for instance of the wind and weather, the appearance of meteors, the occurrence of earthquakes, and a thousand others which will rise to the recollection of every one.

Analogous in point of uncertainty to these are many events connected with those concerning which we feel completely certain: such as the direction in which a ball thrown upon a hard floor may rebound, or the place where it may ultimately rest; the particular effects of an explosion of gunpowder, and the like. An example will explain my meaning. If I throw an elastic ball against a stone floor, I can predict that it will rebound, but not the precise course which it will describe, nor in what part of the floor its motion will finally cease, nor what time will elapse in the process. To me, therefore, the

one event, the rebounding of the ball, is certain; the other event, the direction it will pursue, is uncertain.

4. Perhaps as a fourth class I may instance events which we can predict in the gross, but not in the detail; such as the regular return of the seasons.

Now what is the real difference amongst these four classes of events? What is it that enables us to predict some with perfect certainty, while we can scarcely form a conjecture as to others?

In the first place, it is obvious that the uncertainty entertained with regard to the latter arises from no mistrust of the uniformity of causation. To refer to our third class of physical events, we believe that the direction of a ball rebounding from the floor is as necessary a consequence of certain causes as the rebound itself; and we make no doubt that if we could throw the ball with equal force from the same point to the same place on the floor, and secure the similarity of all the other influential

circumstances, we should obtain the same result. This is exemplified in circumstances a little varied by the expert billiard player. What in the hands of a novice is uncertainty and confusion, becomes in his all the certainty of foreknowledge. The precise course of the ball, and its ultimate resting place, are all foreseen by the prophetic eye of skill.

Since our uncertainty therefore arises not from any irregularity in the sequence of causes and effects, it can arise only from our ignorance of the whole of the causes in operation. These two exhaust the possible suppositions on the subject. To know a cause as such is to foresee the effect which it will produce; and if we know all the causes concerned in a phenomenon, we can foretel all the effects. That some events present steadier objects of prediction than others, merely attests that with regard to the former we have attained superior knowledge. We have a striking exemplification of this in the instance of Astronomy. Before that science was at all cultivated, the eclipses of the

sun and moon, and the positions of the heavenly bodies, were matters of uncertainty; they appeared lawless and irregular phenomena. But if with regard to events which mankind at one time looked upon as unfixed and anomalous, they now feel undoubting confidence, this has obviously proceeded from no change in the character of the events, but from a revolution in human knowledge. We hence obtain a full confirmation of the important conclusion, which, simple as it may appear to be, is perpetually overlooked, that uncertainty is a state or feeling of the mind, not an attribute of events. When we assert that any event is uncertain, we merely declare the state of our minds; it is our knowledge, and not the event, which possesses the character of uncertainty.

Having thus ascertained what is the real meaning of uncertainty as applied to physical events, I proceed to show that whatever uncertainty we feel with regard to voluntary actions is precisely of the same character.

For this purpose let us consider voluntary

actions under different classes, corresponding to those under which we arranged physical phenomena.

1. There are a great number of voluntary actions which we observe to follow certain causes with so much regularity, that we feel a perfect confidence in the result whenever those causes are in operation. With as little doubt as we expect lead to sink in water or gunpowder in contact with flame to explode, we calculate upon a thousand actions depending on the volitions of the human mind; we expect that when food is set before a hungry man he will eat, that when a man's house is on fire he will attempt to escape, that when we direct our servants to do certain offices they will perform them, and that by the offer of certain sums of money we can procure the various commodities which are daily exposed to sale. If any one alleges that these consequences are by no means certain, because for example it is possible the hungry man may refuse food, I reply, that this refusal must arise from some

motive not necessarily connected with his state of hunger. It is possible in the same way that lead may not sink in water (a lump of cork for instance may buoy it up), but this must be occasioned by some adventitious circumstance.

In this first class, therefore, physical events and voluntary actions appear to engender in the mind the same kind of certainty and to be exactly correspondent. . . .

2. We may also find amongst voluntary actions, some which are capable of absolute prediction,—depending on no previous supposition. We can foretel, for instance, that the tradesmen in an English town will shut up their shops on a Sunday, that a number of travellers during the present year will leave England for foreign countries, that speeches will be made in parliament, and that criminals will be condemned by the judges.

All these events are evidently voluntary actions or their results, and may be predicted with as much confidence as the rising of the sun or an eclipse of the moon. The circum-

stance of the motions of the heavenly bodies enabling us to measure time, makes no difference as to the point of view in which we are considering them.

3. To the third class of physical events we shall find abundance of corresponding moral phenomena. I may cite indeed the chief part of the actions of mankind at large. As in the material universe there are numberless circumstances constantly taking place, of which some may be predicted with tolerable exactness and others baffle all conjecture, so in the affairs of men we have all degrees of uncertainty: some actions we may confidently anticipate, while concerning others we are altogether in perplexity. It perhaps will not be contested with regard to this third class, that physical and moral phenomena closely correspond.

4. With regard to the fourth class, which is perhaps a superfluous division and might be resolved by a slight analysis into one or other of the preceding classes, it is obvious that there is the same mixture of certainty and uncer-

tainty in the return of the seasons, and in men's actions consequent on that return. With as much confidence as we anticipate the coming of spring, we may look for a voluntary application of the labour necessary for the cultivation of the soil at that season, although we are unable to predict the exact time and the particular occurrences in either case. There are other events among mankind analogous to these, in respect to uniformity in the aggregate and variety in the details. Thus mankind regularly retire to rest every evening and rise every morning, regularly eat and drink, and pursue their several occupations.

In regard to these four classes then, as in regard to the classes of physical events, we feel certainty and uncertainty; certainty in those cases where our knowledge is complete, and uncertainty in those cases where we are not acquainted with all the influential circumstances. This uncertainty is evidently the feeling of the mind speculating upon the future, nor can we apply the term uncertain to

any conceivable event, physical or mental, with any other meaning.

It is indeed singular enough that any events whatever should ever have been considered as in themselves possessing the character of uncertainty. If any meaning can be attached to this term so used, it must imply that the same causes do not always produce the same effects; for if the same causes always produce the same effects, uncertainty can be nothing but a feeling in the mind of him who speculates concerning them.

It appears to be the numerous instances of this feeling with regard to voluntary actions, which have led to the notion that there must be some greater uncertainty or instability in them than in material events. But if there is this quality in the actions themselves, it must arise from the same causes producing one kind of effect at one time and another kind of effect at another time. It has been shown, however, that we do necessarily and unavoidably assume that the same causes always produce the

same effects; and as this assumption is a necessary law or condition of thought, the contrary must be absurd. This consideration alone is sufficient to determine the vague question which has been agitated respecting the so called freedom of the will, a question which has been spun out into such a length of controversy, chiefly from the simple circumstance of many of the disputants having formed no clear conception of the point in dispute. If in our anticipations of voluntary actions we assume the uniform attendance of certain effects on certain causes, either there must be this uniformity, or by the constitution of our nature we assume what is false,—an alternative which appears to settle the question.

This subject however is too important to be dismissed with a single remark, and it will be resumed in a subsequent chapter.

CHAPTER VI.

ILLUSTRATIONS OF THE TRUTH UNFOLDED IN THE LAST CHAPTER.

We have seen in the last chapter, that the circumstance of some events presenting steadier objects of prediction than others, does not arise from any greater uniformity of causation in the former; and that the uncertainty of our anticipations with regard to both moral and physical events is of the same character and has the same source: it is simply a feeling of the mind, and arises solely from the imperfection of our knowledge.

It was also attempted to show, that men's actions and speculations as constantly proceed upon the expectation that certain voluntary acts will result from certain motives, as that physical substances will produce their usual effects.

It is surprising indeed that this connection between motives and actions should have ever been theoretically questioned, when every human being every day of his existence is practically depending upon its truth; when men are perpetually staking pleasure, and fortune, and reputation, and even life itself, on the very principle that they speculatively reject. It is in truth intermingled in all our schemes, projects, and achievements. In the address of the orator, in the treatise of the author, in the enactments of the legislator, in the manœuvres of the warrior, in the edicts of the monarch, it is equally implied. Examine any one of these. Take for example the operations of a campaign. A general in the exercise of his authority over the army which he commands, cannot move a step without taking for granted that the minds of his soldiers will be determined by the motives presented to them. When he directs his aid-de-camp to bear a message to an officer in another part of the field, he calculates upon his obedience with as little mistrust as he reckons

upon the stability of the ground on which he stands, or on the magnifying power of the telescope in his hand. When he orders his soldiers to wheel, to deploy, to form a square, to fire a battery, is he less confident of the result than he is when he performs some physical operation — when he pulls a trigger, or seals a despatch? It is obvious that throughout all his operations, in marches and encampments, and sieges and battles, he calculates as fully on the volitions of his men as on the strength of his fortifications or the powers of his batteries.

It were easy to multiply illustrations. When a man establishes a manufactory, he reckons with perfect assurance on the power of the motives which he presents to the minds of his workmen. There is a periodical result arising from their volitions in which he unhesitatingly confides, just as he confides in the power of the steam engine which shares their labours.

In commercial transactions of all sorts there is the same reliance. In the simple circumstance of a merchant's draft on his banker,

we have it strikingly exemplified. We can scarcely conceive an instance of more perfect reliance on the determination of the will by the motives presented to it, than this common occurrence. The merchant dismisses his draft into the commercial world without the least doubt, that however circuitous the course, it will at last find some individual to present it for payment, and that his banker will finally pay it. Here we have in fact a series of volitions, the result of which is looked for with unhesitating confidence, with a confidence quite equal and similar to that with which the material of the draft is expected to retain the hand-writing upon it.

The principal illustration however which I have to adduce on this subject is the science of political economy, especially as it will afford at the same time an opportunity of exhibiting the real basis of this science, which has not perhaps been fully understood, even by some of those who have been successful in the discovery and elucidation of its truths.

The principle which is at the bottom of all the reasonings of political economy, is in fact the uniformity with which visible or assignable circumstances operate on the human will. It is for example laid down in books on this subject, that if a community can purchase any commodity on lower terms at one market than another, they will resort to the cheaper market; and on this proposition an economist builds a large superstructure of argument, without the least doubt as to the foundation on which it rests, and confidently predicts what will be the conduct of this or that nation to whom such a choice of markets is offered. The result thus predicted is made up of the actions of individuals, all of whose minds are determined by this assignable circumstance.

Another principle of political economy is, that where competition is left open, there is a certain equality takes place in the profits of the various branches of commerce. If any one branch becomes much more lucrative than the rest, a flow of capital to that department soon

restores the equilibrium. This principle is explained by Adam Smith in the case of the builder, as follows:—

"The building rent," says he, "is the interest or profit of the capital expended in building the house. In order to put the trade of a builder upon a level with other trades, it is necessary that this rent should be sufficient, first, to pay him the same interest which he would have got for his capital if he had lent it on good security; and, secondly, to keep the house in constant repair, or what comes to the same thing, to replace within a certain term of years the capital which had been employed in building it. The building rent, or the ordinary profit of building, is therefore everywhere regulated by the ordinary interest of money. Where the market rate of interest is four per cent., the rent of a house, which, over and above paying the ground rent, affords six or six and a half per cent. upon the whole expense of building, may perhaps afford a sufficient profit to the builder. When the market

rate of interest is five per cent., it may perhaps require seven or seven and a half per cent. If in proportion to the interest of money the trade of a builder affords at any time a much greater profit than this, it will soon draw so much capital from other trades as will reduce the profit to its proper level. If it affords at any time much less than this, other trades will soon draw so much capital from it as will again raise that profit*."

Now when Dr. Smith asserts, that the trade of a builder under the circumstances supposed will draw capital from other trades, he is not stating a physical fact which will take place in consequence of some material attraction, but he is laying down a result which will ensue from the known principles of the human mind, or in other words, from motives acting on society with certainty and precision. The secession of capital from other trades is not a mechanical effect, like the motion of water to its level, but

* Wealth of Nations, book v, chap. 2.

the consequence of a number of voluntary actions. It is an event which is produced through the medium of the wills of human beings, although we reason upon it with as much certainty as on the tendency of water to an equilibrium.

In employing such figurative expressions as these, in exalting trade and capital into spontaneous agents, and investing them with certain qualities and tendencies, we are apt to be deceived by our own language; to imagine that we have stated the whole of the truth, and to lose sight of all those mental operations concerned in the result which we so concisely express. Let us reflect for a moment on all the intellectual and moral processes which lie hid under the metaphorical description of the trade of a builder drawing capital from other trades. To produce this result, the fact must transpire that the trade is more than ordinarily lucrative; this circumstance must excite the cupidity or emulation of a number of individuals; these individuals must deliberate on the prudence

or propriety of embarking in it; they must resolve upon their measures; they must take steps for borrowing money, or withdraw capital before appropriated to other purposes and apply it to this; in doing which, they will probably have to enter into bargains, make sales, draw bills, and perform a hundred other voluntary actions; the result of all which operations will be the employment of a greater portion of the labour of the community in building than formerly, and a smaller portion in other pursuits; and all these with a number of other occurrences are masked under the phrase of one trade drawing capital from another.

It is the same throughout the whole science of political economy. The rise and fall of prices, the fluctuations in exchange, the vicissitudes of supply and demand, the return of excessive issues of paper on the bankers, the disappearance of specie, the depreciation of the currency, and various other events, are to be traced to certain determinate causes acting

with regularity on the wills of bodies of men: all these phrases are in fact expressions of the results of voluntary actions. Such circumstances furnish as striking instances of perfect vaticination with regard to the determinations of the will as any that can be produced from physical science. Political economy is in a great measure an inquiry into the operation of motives, and proceeds on the principle that the volitions of mankind are under the influence of precise and ascertainable causes.

CHAPTER VII.

ON THE UNIFORMITY OF CAUSATION AS THE FUNDAMENTAL PRINCIPLE OF PHYSICAL AND MORAL EVIDENCE.

It is manifest from the foregoing representations, that it is solely by assuming the uniformity of causation that we can penetrate into the future. Without this assumption we could not predict the commonest occurrence, nor calculate on any property of mind or of matter. Every prediction and every calculation on the future is in fact an inference from causes to effects, and implies two things: first, a knowledge of the past sequences of causes and effects; and, secondly, an assumption that the same sequences will take place hereafter.

This is the only kind of vaticination or foresight which we can conceive.

It is the same assumption of the uniformity of causation which enables us to penetrate into the past. But in doing this we evidently reverse the proceeding. Instead of inferring effects from their causes, we in the first instance at least infer causes from their effects—a process which implies the same knowledge of the sequences of events, and also an assumption that those sequences have always been the same. We can ascertain past events which we have not ourselves witnessed, only by tracing their connection with present circumstances; nor can we proceed a step in this without assuming that like effects have had like causes.

In what may be called physical evidence the process is very clear and simple. Suppose for instance, that travelling through a newly discovered country I come to a deserted and dilapidated building. I infer with all the unconsciousness and instantaneousness of instinct that it was built by human beings. I enter: I

perceive a chimney blackened by smoke, and I find long rank grass growing in the roofless apartments; from which circumstances I conclude that the tenants of the building were in the habit of using fire, and that it has not been recently occupied. In all this it is obvious that I assume at every step the uniformity of causation in the past. How can I tell that the structure has been the work of men? Plainly, because I have seen men, and men only, construct similar edifices, and a similar effect must have had a similar cause. Deprive me of this latter principle, let similar effects be supposed to proceed from dissimilar causes, and I cannot make a single inference: the structure may have been the work of birds, it may have sprung like a mushroom from the earth, or fallen like a shower from the sky.

In all other cases of physical evidence, the procedure of the mind is, in the first instance*,

* I say *in the first instance*, because, after having inferred a past cause from any present phenomenon, we may descend from that cause to other effects of which we have no

a simple inference from present appearances to the causes which produced them. One of the most striking examples of this kind of evidence is furnished by the science of geology, in which, from the phenomena presented by the ante-diluvial strata of the earth, the philosopher infers the past occurrence of events concerning which the voice of history is totally silent. Here, where not a whisper of human testimony is heard, we perceive the nature of physical evidence in its naked and undisguised form; and we cannot fail to discern, that every step of our reasonings from it is an ascent

direct evidence. Thus in the science of geology, we infer from the appearance of certain strata that they were deposited by water; and when we have thus established the agency of water we may proceed to deduce many other necessary effects which must have resulted from it. In this way we reason from effect to cause and from cause to effect; but in every case which refers to past events, our inferences *commence* by the former, namely, by reasoning from present phenomena to their causes; and whichever we do the same assumption is involved in the process.

from present phenomena to their causes, involving the principle of uniform causation.

But it is only a small part of our knowledge of past events which we gather from physical evidence. By far the most important source of information relative to such events is the testimony of human beings; and it is a curious, interesting, and momentous inquiry, whether we proceed on the same principle when we avail ourselves of this moral evidence to penetrate into the past, as when we make use of that which is of a purely physical character.

Testimony must be either oral or written. As far as the mere physical circumstances are concerned, we evidently commence our use of it by reasoning from effects to causes. We infer, for example, that the writing before us has been the work of some human being, in doing which we of course assume the uniformity of causation. If from the circumstances attending the testimony we infer that it is entitled to be received as veracious; if for in-

stance we find that it has proceeded from a man of tried integrity, and who acted under the influence of motives which render it unlikely that he should deceive, our inference still proceeds on the assumption of the same principle. I may have in other cases found these circumstances to have been the precursors or causes of true testimony; but how can I or any one tell that they have operated in the same way in the instance before me. The reply must evidently be, that it is impossible to avoid assuming that the same causes have invariably the same effects.

In fact, if we examine any of the rules which have been laid down for the reception of testimony, or any of those marks which have been pointed out as enabling us to judge of its credibility, we shall find them all involving the uniformity of causation. It is allowed on all hands, that the concurrence of a number of witnesses in the same assertion, their reputation for veracity, the fact of the testimony being against their own interest, the probabi-

lity of detection in any false statements, are all circumstances enhancing the credibility of what they affirm. These are considered as general principles on the subject gathered from experience, and we apply them instinctively to any new case which may be presented to us, either in the course of our own observation, or as having taken place at some former period. But it is obvious from what has just been said, that unless we assume a uniformity in the succession of causes and effects, we cannot transfer our experience from any one case to another. That certain circumstances have produced true testimony in one or a hundred instances, can be no reason why they should produce it in a different instance, unless we assume that the same causes have necessarily the same effects.

It is clearly shown by this reasoning, that in the reception of testimony and the use of physical evidence we proceed on the same principle. But in the case of testimony there is a peculiarity not belonging to physical evidence.

In the former we not only have certain effects from which it is our task to infer the causes, or certain causes from which to infer the effects; as when we judge the writing before us to have been the work of some human being, or the testimony to be true on account of the circumstances under which it was given; but the testimony itself consists of the assertion of facts, and the nature of the facts asserted often forms part of the grounds on which the veracity of the testimony is determined: it frequently happens, that while external circumstances tend to confirm the testimony, the nature and circumstances of the facts attested render it highly improbable that any such facts should have taken place, and these two sets of circumstances may be so exactly equivalent as to leave the mind in irremediable doubt. In the consideration of both, however, the same assumption is involved. We think the facts improbable, because we have found them rarely occurring under the circumstances stated; we think the testimony likely to be true, because

we have generally found true testimony to proceed from witnesses acting under the influence of similar motives, and what we have found to happen in other cases we are irresistibly led to conclude must also happen in the case before us.

The opposition of the circumstances of the evidence and the nature of the facts may be carried still farther. Assertions are frequently made which in themselves imply a breach of the uniformity of causation. From such cases the conclusions already established remove all difficulty. To weigh probabilities, to determine what credit is due to two sets of conflicting circumstances, neither of which as far as our knowledge extends is irreconcilable to the usual course of nature, is often a nice and arduous task; but if the principles of this essay are correct, it is easy to see what reception ought to be given to assertions professedly implying a deviation from the uniform succession of causes and effects.

Suppose, for instance, any person to affirm

that he had exposed a cubic inch of ice to a temperature of 200 degrees of Fahrenheit, and that at the expiration of an hour it had retained its solidity. Here is a sequence of events asserted which is entirely at variance with the admitted course of nature, and the slightest reflection is sufficient to show that to believe the assertion would involve a logical absurdity. The intrinsic discrepancy of the facts could never be overcome by any possible proofs of the truth of the testimony.

For let us put the strongest case imaginable; let us suppose that the circumstance of the ice remaining unmelted, rests on the concurrent testimony of a great number of people, people too of reputation, science, and perspicacity, who had no motive for falsehood, who had discernment to perceive and honesty to tell the real truth, and whose interests would essentially suffer from any departure from veracity. Under such circumstances false testimony it may be alleged is impossible.

Now mark the principle on which this re-

presentation proceeds. Let us concede the positions, that what is attested by a great number of witnesses must inevitably be true,—that people of reputation and intelligence without any apparent motive for falsehood are invariably accurate in their testimony,—and that they are above all incapable of violating truth, when a want of veracity would be ruinous to their interests. Granting all this, I ask the objector, how he knows that these things are so; that men of this character and in these circumstances speak truth? He will reply that he has invariably found them to act in this manner: but why, because you have found them to act in this manner in a few or even in many cases, within your own experience or in the experience of ages, do you conclude that they have acted so in all cases and in the case before us? The only answer is, that it is impossible not to take for granted that in precisely similar circumstances similar results will ensue, or that like causes have always like effects.

Thus on the ground of the uniformity of causation, he would be maintaining the competency of testimony to prove a fact which implies a deviation from that uniformity.

It is true that the one case relates to a physical and the other to a moral event; and it is barely possible that some one may contend that the uniformity of causation in material is inferior to that in mental changes.

To refute such an objection, I should have to reverse the train of argument by which I endeavoured to show in a former chapter that the uniformity of causation is the same in both. I had there to prove that the greater uncertainty which is supposed to characterise mental phenomena, is merely the uncertainty of our own knowledge; but in refuting the objection at present under notice, I should have to prove that there is no greater uniformity of causation in voluntary actions than in physical events, which is surely a superfluous undertaking.

It is indeed curious enough, that if any one should choose to exalt the evidence of testi-

mony above physical evidence, he would have the difficult task of proving that this uniformity is superior in voluntary actions. For testimony is in all cases a voluntary act or the result of volition, implying the previous operation of motives. If a person asserts that he has witnessed a particular event, he must be actuated by some motive or other to make the assertion. Suppose this motive invariably to be a desire to disclose the truth, accompanied by the requisite knowledge; we should then confidently rely upon hearing the truth whenever any human being opened his lips. But it is evident that our confidence would be in no respect greater than that which we should feel with regard to the melting of ice when placed in the fire, or the sinking of lead when thrown into the sea. If testimony were uniformly true, its truth could not rank higher in point of certainty than any other ascertained fact in nature, or in other words there could be no reason why it should produce a greater degree of certainty in our understandings.

These considerations appear to establish the important rule, that no testimony can prove any deviation from the known sequences of cause and effect, or that at any time similar effects have not had similar causes or similar causes similar effects.

In the strongest conceivable case, the argument of an advocate for the power of testimony to prove such deviations would be this: "It is impossible that human testimony should not be true in these circumstances, because its falsity would be contrary to the principles of human nature; that is, it would imply a deviation from that sequence of motives and voluntary actions which has invariably been observed."

But on precisely the same ground he ought to maintain that the circumstances attested could not take place, because they are contrary to the laws of the material world, unless it can be shown, as I have before remaked, that the certainty or uniformity of causation in voluntary actions is greater than in physical events.

The rule now laid down, is in fact that by which mankind are universally though perhaps not consciously nor uniformly guided. Let us take another case as an illustration. If a number of men were to swear that they had seen the mercury of a barometer remain at the height of 30 inches when placed in the exhausted receiver of an air-pump, their testimony would be instantly rejected. The universal conclusion would be that such an event was impossible. To justify the rejection of the evidence, it would not be necessary to account for the origin of so extraordinary a statement, or to trace the concatenation of motives in the minds of those who asserted its truth. The motives of the witnesses might be quite inconceivable, there might be no apparent advantage to any of them in hazarding a falsehood: on the contrary their rank in life, their reputation, their habits of integrity, the disgraceful consequences of detection, might appear irresistible dissuasives from a course of deceit. But although these circumstances might concur in

rendering their veracity probable, no man of science would listen to their evidence. People might be perplexed to account for their conduct, but all would agree as to the credit due to their statements.

It may be asked, why reject the testimony rather than admit the fact, when the former equally implies a deviation from the uniform sequence of causes and effects? If the circumstances of the witnesses are such as always give rise to true testimony, then to consider their evidence as false is to admit, that the same causes do not always produce the same effects.

The answer to this objection is not difficult. If the rejection and the admission of the testimony equally implied a deviation from the uniform sequence of causes and effects, there could be no reason for either rejecting or admitting it; for every reason which can be assigned why any past event should be regarded as having taken place involves the uniformity of causation. But the rejection of the testi-

mony is not in this predicament. The causes of testimony, or in other words those considerations which operate upon the mind of the witness, cannot always be ascertained, and as we are uncertain as to the causes in operation we cannot be certain of the effects: we cannot be sure that the circumstances of the witness are such as have before given rise to true testimony, and consequently we cannot be sure that the testimony is true. To reject testimony therefore, in any case where it is brought to establish a professed deviation from the uniform sequence of causes and effects, can never imply a departure from that uniformity, while to admit it would by the supposition necessarily involve one. It may be remarked further, that many of the sequences of cause and effect in the material world, are so simple that we may at any time verify them by experiment, which can seldom be done with regard to moral events, such as testimony, the result of complex causes. Whether ice will melt in the fire, or whether mercury will remain at a

height of 30 inches in the exhausted receiver of an air-pump, I can try at pleasure; but I cannot place a witness under the influence of any assigned combination of circumstances, for the purpose of trying whether they will cause him to speak truth. The sequence which is thus perfectly ascertained can never be invalidated by one which is doubtful.

A still closer argument may be employed. Should any man affirm himself to have been an eye-witness of any event contrary to the usual succession of causes and effects, such as those above adduced, I might consistently reply to him in the following terms: "I have no grounds whatever for believing what you say. You assert that an event has taken place quite at variance with the observed course of nature; but if I once give up the uniformity of causation or of the laws of nature, I may account for what I hear by supposing that your senses have deceived you, or that your tongue utters words which you do not intend, or that my ears have acquired the property of changing

the sounds transmitted to them; or any other mutation which it is possible to conceive. Without this principle I should be abandoned to the utmost licence of conjecture and scepticism, nor could I possibly have any reason for supposing one of these events to have taken place rather than another, because every reason that could be assigned would necessarily imply the principle which I had discarded.

In a former chapter I endeavoured to prove, that the uniformity of causation could not be established by testimony, because testimony reaches only a limited number of events; and our reception of it, as the present chapter has more largely shown, proceeds on the assumption of that uniformity which it was supposed capable of proving. But it is obvious to remark, that if testimony on this account is not capable of proving the uniformity of causation, it cannot prove the contrary; if we necessarily assume this principle antecedent to all testimony and in the reception of testimony itself, we cannot subsequently discard it on the

strength of the same species of evidence. The illustration of this remark however, would only lead to a repetition of what has been already advanced.

In saying that by far the most important kind of evidence is the testimony of human beings, I ought to have qualified the observation by stating that the proofs of the being of a God all belong to that class of evidence which I have termed physical. It is not human testimony but physical evidence, which points to the existence of a Supreme Intelligence; and it is worthy of particular remark, that every argument adduced from the appearances of design in the works of nature, from the exquisite contrivances which overpower us with admiration, is an obvious instance of the unavoidable assumption that like effects must have had like causes. Renounce this principle, and how would it be possible to infer from the most admirable appearances of design, that they have been the production of an intelligent cause?

In vain would the philosopher point out in any organized body the admirable correspondence of means to ends, the nice adaptation of one expedient to meet an inconvenience and another to secure an advantage, the happy disposition of parts, and the harmonious operation of the whole, unless we could be sure of the truth, that similar effects must have had similar causes, and that consequently successful contrivances to produce happiness and obviate misery, could proceed from no other source than a wise and benevolent Author.

CHAPTER VIII.

ON POSSIBILITY, PROBABILITY, AND THEIR OPPOSITES.

THE term uncertainty has already been explained in another chapter, in which I endeavoured to show that it designated a state of the mind, not an attribute of events. A similar observation may be made with regard to the words probability, possibility, and their opposites; important terms which I have hitherto employed without explanation, because I considered that their real signification would be necessarily brought out by the preceding discussions.

It is worthy of particular notice, that we apply these terms in common to the past and

the future. We speak of the probability of a circumstance related of Miltiades or Julius Cæsar, as well as of the probability of an event which is looked for to-morrow. As to the past, it requires no argument to prove that a certain succession or train of events has taken place, which from the nature of the case cannot be altered, and which may be said to form an immutable object of knowledge. It follows consequently, that if with regard to the past we make use of any terms implying dubiousness or uncertainty, such terms have no relation to the events themselves but to our acquaintance with them. When we speak of past circumstances as possible or impossible, probable or improbable, we are only expressing the degree of our knowledge.

The term possible evidently implies a defect of knowledge on our part. It implies in fact that we are not acquainted with all the antecedents of that event to which we apply the epithet. We are told, for instance, that a man

B fell from his horse yesterday morning at eight o'clock, and we pronounce such an accident possible, because we are not acquainted with any circumstance irreconcilable with it, nor is any such circumstance assigned by the narrator. But the report is false; the event has not taken place, and had we known the whole preceding circumstances relating to B up to the hour specified, we should have pronounced the accident impossible: we should have found, perhaps, that B had indeed mounted his horse, but also that his body was all the time in a position utterly incompatible with his falling, so that his keeping his seat was the necessary consequence of the causes in operation.

That event therefore to us is possible which contradicts not our experience, in as far as we are acquainted with the circumstances attending it, or in other words which does not imply any deviation from the uniform sequence of causes and effects.

This brings us to the signification of impossible, when that term is used in reference to the succession of events. An event is impossible which contradicts our experience, or which implies that the same causes have produced different effects, or the same effects been preceded by different causes. While the term possibility implies a defect of knowledge on our part, impossibility implies no defect, but on the contrary complete knowledge of the succession of causes and effects. Thus when we pronounce that it was impossible for a piece of ice to remain in the midst of burning coals without being dissolved, our conclusion involves a complete knowledge of this particular effect of fire on ice, as well as the assumption that what has taken place in our own experience must always have occurred under precisely the same circumstances.

If I am not greatly deceived, the acutest reasoner, the closest thinker, the most subtile analyzer of words will find himself unable to pro-

duce any other meaning of the term impossible than that which is here assigned to it*.

When any event is rumoured to have happened and we pronounce the rumour to be untrue and the event impossible; or when any circumstance is well attested and we pronounce it impossible that the evidence should be false, what is the real amount of our words? In what consists the impossibility? On what principle does our judgment proceed?

If the impossibility does not consist in the event involving a deviation from the uniformity of causation, if our judgment proceeds on any other principle than this, let the essence

* There is another use of the word impossible in the sense of self-contradictory. For instance, it is said to be impossible to make a true circle whose radii shall be unequal. Such impossibilities would, as several philosophers have remarked, be more properly styled self-contradictions. Analysis carried farther than I have at present occasion to push it, might probably show that all impossibility, and amongst the rest that here treated of, involves a contradiction of ideas.

of the impossibility, let the real principle of our judgment be exhibited. Let us see what other explanation of this important term can be given.

In the mean time, when we are referring to the succession of events, we may consider *impossible* and *involving a deviation from the uniform succession of causes and effects*, as convertible terms or synonymous expressions. "It is impossible for ice to remain in the fire unmelted," is just the same proposition as "the continuance of ice in the fire unmelted involves a violation of the uniformity of causation." How many perplexing difficulties would be solved and controversies determined by the simple substitution of one of these phrases for the other!

The term probability will not detain us long. It necessarily implies a deficiency of knowledge, since if we knew all the circumstances connected with an event alleged to have taken place, we should know whether or not it had happened, and we should not regard it with any uncer-

tainty. The circumstances connected with an event may be either such as precede or such as follow it, or in other words they may be either causes or effects. If we knew the whole of the causes in operation at the time the event is alleged to have taken place, we could with certainty infer the effect, or whether the event took place or did not: or if we knew the whole of the circumstances succeeding that time we could also determine the matter. Probability therefore can only have place when but part of these preceding and succeeding circumstances are known, and will be greater or less according to the number of them with which we are acquainted.

According to this explanation, an event is probable when we are acquainted with a number of circumstances preceding and succeeding, which must have happened had the event taken place, and it is improbable when we are acquainted with a number of such circumstances, which must have happened had the alleged event not taken place; or perhaps probability

may be said to consist in the preponderance of the former kind of circumstances over the latter, and improbability of the preponderance of the latter over the former.

Probability could not evidently be attributed to any events unless they proceeded from regular causes and produced regular effects. To us they are probable because we know some but not all the circumstances connected with them; but as although we knew all the circumstances we could not be sure of the events without assuming the uniformity of causation, so if we know only a part of the circumstances we cannot regard the events as probable without the same assumption. Thus whether the preceding definition of probability is sufficiently comprehensive and accurate or not, it is plain, that whenever we employ the term we necessarily assume the principle of uniformity. The argument may be put in a somewhat different shape. An event is asserted to be probable. Why? Because certain circumstances have

happened which always accompany such an event. But why should those circumstances be considered as rendering the event probable in the instance in question? They have, it is true, in other cases been found to constitute grounds of probability, but why should they continue to do so in the present instance? No answer can be given, but that we unavoidably assume the occurrence of similar results in similar cases.

We have hitherto considered these terms as applied to the past, and it requires little illustration to show that they have the same meaning when applied to the future.

In speculating on the future, we consider that to be possible which is not at variance with the known sequences of events; that to be impossible which implies a deviation from them. No prediction would be listened to a moment which involved an incompatibility with that assumption of the uniformity of nature, which is identified with all our mental opera-

tions, and without which foresight and prediction could not have place. Probability and improbability, when applied to the future, have also the same signification as when applied to the past, and imply an acquaintance with part only of those circumstances, a knowledge of the whole of which would give us the power of unerring and positive prediction.

CHAPTER IX.

ON NECESSITY.

In a former chapter we have remarked, that the fact of our assuming the uniformity of causation in mental as well as physical events, appears to settle the question respecting the necessity of human actions.

The regular sequence of causes and effects seems to be all that is implied in the word necessary. From the disputes, nevertheless, which have arisen with regard to the necessity of human actions, it is evident that the term has been used in a vague or ambiguous manner. On a close investigation, I think it will be found that this word has been employed in three different senses unconsciously and without discrimination :—

1. In the sense already explained to denote the uniform connection of cause and effect.

2. As the opposite of the word voluntary, or in other words, either in the negative sense of being independent of the will, or in the positive sense of being against or in opposition to the will.

3. To denote the circumstance of our being able to trace an effect to its causes. That which we can refer to its causes we frequently term necessary, while that which we are not able to trace to its causes we call contingent.

1. In the first of these senses, no one can deny the necessity of human actions without inconsistency. That there is a uniformity of causation in mental as well as physical events, in the determinations of the will as well as in the operations of the intellect; that we unavoidably assume this uniformity and perpetually act on the assumption; are facts which have already been established in the preceding chapters. If then this is the meaning of

those who assert the necessity of human actions; if they simply intend to express that voluntary actions follow their causes with the same regularity which prevails in the changes of the material world, no one can refuse to admit the proposition without contradicting a principle of his own mental constitution.

2. With regard to the second meaning of the term, it is scarcely requisite to make a remark. If by necessary we mean the opposite of voluntary, then to call voluntary actions necessary would be absurd. This is an absurdity perhaps never committed by the advocates of the doctrine of necessity, but it is one often virtually imputed to them by their opponents.

3. If by the term necessary we mean to denote those events which can be clearly traced to their causes and thus become the objects of unerring prediction, and if by contingent we mean to denote those events, the causes of which lie hid from our scrutiny, then voluntary actions like physical events are of both kinds, some are necessary and some contingent, and

in the progress of knowledge many of the latter are gradually passing into the former.

In this sense the term necessary coincides with the term certain, explained in a preceding chapter, and has relation merely to the state of our knowledge, not to any quality in the events themselves. Our incapability of assigning the causes of any effect, or predicting the effects of any cause, can in no way alter the connection between them.

It appears from this examination as if there could be no dispute at all in reference to any propositions depending on the term necessary, so long as it was exclusively employed in any one of the three acceptations here pointed out; and of any other meaning than these three it seems difficult to form a conception. It is to be suspected therefore, that the differences on this subject have arisen from sometimes attaching one and sometimes another of these meanings to the word and to other equivalent expressions, and also from a similar vacillation in the use of the antagonist phrases.

There is one prevalent fallacy which could never have been supported a moment had there been strict precision in the employment of terms. It consists in asserting that voluntary actions are not necessary, because in every case the agent might have acted differently. This is in fact at the bottom using necessary as the opposite of voluntary, and then asserting the consequent truism, that what depends on the will is not necessary. But the fallacy deserves a more detailed exposure. Suppose then some one to assert that his voluntary actions are not necessary, because in every conceivable case he might have acted otherwise. We must in the first place ascertain the meaning of the expression "might," and a *little* consideration will show it to imply an alteration in the conditions of the action. The full meaning is that he might have acted otherwise had he pleased, which is only asserting that had antecedent circumstances been different a different effect would have followed. It is in truth an assertion of the necessity of the same

result in the same circumstances, for in order to conceive a different result he is obliged to suppose an alteration in the cause. His being pleased to do the action was the necessary condition to its being done. Had he pleased to do some other action, that other action would have followed.

Should it be still alleged that his being pleased was his own doing, it may be replied that it was certainly an event which took place in his own mind, if that is what it is intended to say: but in general when we speak of any thing being our own doing, we mean that it was our voluntary act. Now in no sense can his being pleased to do a thing be said to be his voluntary act, for if we trace what passes in the case of every voluntary action we shall find three things:—

1. Certain ideas are presented to the mind.

2. The mind is brought into the state of willing or being pleased to do something; which is generally if not always in the first instance a movement of the muscles.

3. The movement follows, or the thing is done, and this third event is that which we term a voluntary action.

If this is a correct account of the successive steps essential to a voluntary action, then to say that being pleased to do a thing is itself a voluntary action, is to say that an effect is its own cause. We call an action voluntary because it follows that state of mind which we designate by the expression being pleased to do the action, and consequently to apply the same epithet to the state of mind itself would be to assert that being pleased was the consequence of being pleased. It will be seen from all this, that when any one maintains voluntary actions not to be necessary because he might have acted otherwise had he pleased, his proposition merely asserts that a different result would have happened under different circumstances; and proves in fact the impossibility of conceiving any event to have been otherwise than what it was, except on the supposition of a change in the causes. The asser-

tion is a proof that voluntary actions *are* necessary in the only sense affixed to it by any one who understands the subject, namely in the sense of depending on regular causes; for he is compelled to suppose a change of causes in order to suppose a change of effect, —a procedure evidently implying that while the causes are the same the effect cannot be different.

It is obvious that in such fallacies as this there is an inveterate supposition that by the term necessity is meant something acting in opposition to the will, and obliging us to perform actions at variance with it, and it is not surprising that under this supposition the doctrine of necessity should have appeared inconsistent with our own consciousness. But when the term necessity is kept strictly to one meaning, when it is used to denote simply the connection of causes and effects, and all that the doctrine asserts is shown to be that the state of mind termed willing, or being pleased to do a thing, is an effect of regular causes,

every semblance of inconsistency with personal consciousness vanishes. All that we can in any case be conscious of is, in the first place, the occurrence of a smaller or greater number of views or considerations, some perhaps inclining us to act one way and some another, and in the second place the power of doing as we please. In this there is nothing in the slightest degree incompatible with the doctrine of causation. The occurrence of certain views or considerations to the mind is one link in the chain of moral causation, which the advocate of philosophical necessity cannot be supposed to deny,—nor does he refuse to admit, nay he insists in its fullest sense on the consciousness of the power of doing as we please. We always are conscious of the power, and always exercise the power of doing as we please in things depending on the will; but why are we pleased to do one thing rather than another? This is an effect which by the constitution of our nature we pronounce must have a cause; and all that the philosopher

asserts is that there is a cause or combination of causes, which in every case brings the mind into the state of being pleased. This cause or combination of causes cannot always be assigned, but there are thousands of instances in which the connection of the cause and the state of mind is so completely ascertained, that we do not hesitate to infer one from the other.

In judging of human nature we are obviously guided partly by our own consciousness and partly by our experience of mankind. Both are often necessary for the establishment of a general truth, and they admirably unite in support of the doctrine of philosophical necessity. We not only find from an examination of our own minds that it states nothing at variance with what is passing there, but we see when we look abroad that the phenomena of human life are crowded with illustrations of its truth*.

* It is no wonder that misconceptions of the doctrine of philosophical necessity are so prevalent, when

Self-introspection is in all cases an indispensable process for arriving at correct conclu-

such a writer as Dr. Coplestone has given the following representation of it.

"Let us now attend to the graver question, whether because God made the world and all things in it, therefore every thing that happens, human conduct as well as the rest, must be regarded as proceeding from him, and determined beforehand by his direction, in all its detail. Whatever has been, is, or will be, could not, as some say, be otherwise. We, vain and insignificant creatures, full of our own importance, imagine that we act from ourselves, that we can deliberate, choose, reject, command, forbid, contrive, hasten or hinder a thousand things, when in fact this is all delusion — all the creation of our own fancy. We are but members of the machine, like the rest; and though we may please ourselves with thinking that we act an independent part, the real truth is, we have no voice, no power, no control in what is going on — all would take its course just the same, whether for good or for ill, were we to give ourselves no anxiety or concern whatever in the matter. Such, I believe, is a fair statement of the doctrine of philosophical necessity, or predestination, confined to this life." *Inquiry into the Doctrines of Necessity and Predestination*, p. 7.

The author of the present treatise will not assert that

sions regarding the powers and principles of the human mind, but the facts which it presents are just as easily connected with false

Dr. Coplestone may not find some authorities for this representation in the multitude of writings on the subject of necessity; but he will venture to say that there is scarcely a proposition in the whole passage, except perhaps the two first sentences, with which any necessarian who understands the question would agree. So far indeed from holding the opinions here imputed to him, he would maintain the reverse; he would maintain that we can and do deliberate, choose, reject, command, forbid, contrive, hasten or hinder a thousand things; that this is not delusion; that deliberation, choice, rejection, are as real events as freezing, thawing, raining; that we have a voice, a power, a control in what is going on; that instead of all pursuing its course just the same, were we to give ourselves no anxiety or concern whatever in the matter, this anxiety or concern is a necessary link in the chain without which a totally different series of events must ensue; that, in other words, if we did not give ourselves any trouble about things, if we did not exercise a power and control over them, they could not possibly follow the same course as if we did, our being anxious or taking a concern or exercising a control in them being a condition, the absence of which would necessarily modify the result.

inferences as any others. Of this the present subject yields an illustration, which is also a striking instance of a moral phenomenon more prevalent in the world than we are apt to suspect, the existence in the same understanding of two opinions mutually destructive, without any consciousness of their incompatibility. We frequently find the same person denying the doctrine of the necessary determination of the will by the motives presented to it, and yet contending for the necessary truth of testimony in certain assignable circumstances.

It scarcely requires a word to show the inconsistency of these two intellectual acts. Testimony, as we have before remarked, is the result of volition; and to maintain that certain circumstances necessarily give rise to that sort of testimony which is true, is to maintain that the motives presented necessarily determine the witness to speak the truth.

The origin of this inconsistency will I think be found in the appeal which men are apt to make in these cases to their own feelings.

With regard to the first case, namely, the determination of the will by the motives presented to it, they are conscious that when any action is proposed to them they can decide as they please, and they therefore reject the idea of any necessity in their determinations. With regard to the second case, namely, the necessary truth of testimony in certain assignable circumstances, their conclusion seems in the same way the result of an appeal to consciousness. They represent to themselves all the strong motives constituted by those circumstances, and they feel that in such a situation they could not have uttered a syllable of falsehood.

Hence it appears that the same appeal to consciousness results in two conclusions incompatible with each other; the validity of the conclusion in favour of the truth of testimony in certain assignable circumstances, depends on the invalidity of the other conclusion, that there is no necessary determination of the will. It is not however that men are in this case de-

ceived in the facts. The incompatibility of the results is owing to the fallacy of the inference, that because we are conscious of being able to do as we please, there is no necessity in our determinations, a fallacy itself proceeding on an erroneous interpretation of the principal term.

There is also another intellectual phenomenon connected with the subject before us, which may perhaps be also referred to the habit of appealing to our own consciousness. Notwithstanding the universal and unavoidable assumption of the uniformity of nature, there seems to be on some occasions in the minds of the ignorant, a more lively sense or deeper impression of the uniformity of causation in motives and actions than in physical events, when these two are placed in opposition.

For instance, a narrative relating events contrary to the laws of nature is received on the authority of men, whose interest, as far as we can discover, would naturally lead them to suppress it. Obloquy and threats and violence

perhaps are in vain employed to make them depart from their statement; and although their story implies as palpable a violation of the properties of matter, as that which in the extremest case the falsehood of their testimony could possibly involve of the principles of human nature, there is often a strong propensity to believe it. Men can scarcely imagine that any one should persevere in a false statement, in opposition to all the motives which urged him to abandon it. Less difficulty is found in conceiving an equal anomaly in physical events. It is probable that this partial leaning to the necessary operation of motives in such circumstances is to be accounted for, by the different kinds of mental reference employed in regard to the two classes of facts. In regard to moral facts we appeal to our own consciousness, whether such motives would not have had such effects, whether we ourselves could have persevered if the statement had not been true, and we feel intensely sensible

of the impossibility of continued imposture. In regard to physical facts, on the other hand, we appeal to a less vivid principle, to our recollection. In the former case we appear to make an actual trial, we put the matter to the proof of our own sensibility; in the latter we go through the cooler process of referring to knowledge previously acquired.

Although this may explain why men have sometimes a greater tendency to believe in the uniformity of moral than of physical events, it evidently furnishes no logical ground of preference, and the tendency itself manifests an obvious inconsistency. It is only too in particular circumstances, as for instance when the evidence is vividly exhibited or the mind is under the impression of deep prejudices and feelings, that the phenomenon is observable. At other times the instinctive belief of the uniform sequence of physical causes and effects, is the source of that undefined and latent, but irrepressible scepticism, with which men in

general regard every narrative asserting a deviation from the regular course of nature. It is a remarkable fact, however, in the history of the human mind, that while men speculatively reject the principle of uniformity in moral events, they should in some cases practically ascribe greater force to it than to the uniformity of physical causation.

CHAPTER X.

CONCLUSION.

MAN, it has been remarked, is placed on the narrow isthmus of the present time, between the two oceans of the past and the future: and I have endeavoured to show the principle by the aid of which he sends his glances over both.

All, in fact, that a man strictly speaking experiences relating to external things, are certain affections of his bodily organs, and the rest of his knowledge consists of inferences from these. Even in the instance of testimony oral or written, what he directly knows is in the one case a few sounds, and in the other certain affections of the organ of vision; every

thing beside may be said to be conclusions, however rapid, or habitual, or instantaneous, deduced from these simple sensations; and he cannot arrive at one of these conclusions without assuming the grand principle of the uniformity of causation.

The assumption of this principle I have endeavoured to illustrate. I have shown that it enters into our reasonings on the past as well as into our speculations on the future; that the truth assumed is not the result of personal experience, nor to be gathered from the testimony of others; and that the assumption of it is involved in all our conclusions respecting moral and intellectual as well as physical phenomena.

I have further endeavoured to show that uncertainty is a state of the mind, not an attribute of events; and that whatever uncertainty we feel in regard to voluntary actions, is of the same kind and has the same origin as that which we feel in regard to physical occur-

rences; and moreover that men's actions and speculations as constantly proceed on the expectation that certain acts will result from certain motives, as that certain effects will be produced by physical causes.

I have also entered expressly into the consideration of this assumption as involved in our reasonings upon the past or our use of evidence, and shown, that as the whole of our inferences from the present to the past rest upon it, or in other words the whole of our knowledge of the past, we cannot discard it in any case without a logical absurdity. I have particularly applied this truth to the case of testimony; and in conclusion I have attempted to prove that the term impossible, when employed in reference to the succession of events, can imply nothing but a deviation from the uniformity of causes and effects, and that the term necessary is merely expressive of that uniformity.

Many of these are either striking truths in themselves, or truths from which important

consequences naturally flow. They seem to myself to be principles which may be decisively applied to the elucidation of doctrines hitherto obscurely understood, and to the determination of controversies long vainly agitated.

Amongst the important questions, the solution of which they comprehend, two deserve to be particularly distinguished. The first is the controversy on the subject of philosophical necessity. The fourth, fifth, and sixth chapters will I apprehend be found to determine all that can be meant by this term, and its antagonist *freedom of the will*, almost without any mention of either of those phrases; and the chapter which is devoted expressly to the subject will render this still more apparent.

The other important question that may be cited as embraced by the doctrines in this Essay, regards the legitimate bounds of testimony. If the principles laid down on this subject are correct, they release the mind at

once from an overwhelming load of difficulty, and plainly define one of the true limits of that important species of evidence. If they are not correct, the plainness with which they are laid down will render their refutation an easy task, and facilitate the object which this imperfect but maturely considered essay has had in view,—the establishment of truth in a momentous and difficult sphere of inquiry.

THE END.

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